FEDERAL ELECTRIC CORPORATION

BIG RALLY II COMMUNICATION SYSTEM

TEST DATA

PHASE II

VOLUME VI

ESD RECORD COPY

RETURN TO SCIENTIFIC & TECHNICAL IN CHMATION DIVISION (ESTI), BUILDING 1211

COPY NR. OF COPIES

ESTI PROCESSED

- DDC TAB PROJ OFFICER
- ACCESSION MASTER FILE

DATE

ESTI CONTROL NR AL-42100

CY NR____ OF___ CY



an associate of

INTERNATIONAL TELEPHONE AND TELEGRAPH CORPORATION

FEDERAL ELECTRIC CORPORATION
BIG RALLY II COMMUNICATION SYSTEM
TEST DATA
PHASE II
VOLUME VI
ESD-TDR 64-451

When US Government drawings, specifications or other data are used for any purpose other than a definitely related government procurement operation, the government thereby incurs no responsibility nor any obligation whatsoever; and the fact that the government may have formulated, furnished, or in any way supplied the said drawings, specifications, or other data is not to be regarded by implication or otherwise as in any manner licensing the holder or any other person or conveying any rights or permission to manufacture, use, or sell any patented invention that may in any way be related thereto.



Qualified requesters may obtain copies from Defense Documentation Center (DDC). Orders will be expedited if placed through the librarian or other person designated to request documents from DDC.

Copies available at Office of Technical Services, Department of Commerce.

Do not return this copy. Retain or destroy.

CLEARINGHOUSE FOR FEDERAL SCIENTIFIC AND TECHNICAL INFORMATION CESTI DOCUMENT MANAGEMENT BRANCH 410.11

LIMITATIONS IN REPRODUCTION QUALITY

ACCESSI	ON # AD 604913
□ 1.	WE REGRET THAT LEGIBILITY OF THIS DOCUMENT IS IN PART UNSATISFACION!. REPRODUCTION HAS BEEN MADE FROM BEST AVAILABLE COPY.
	A PORTION OF THE ORIGINAL DOCUMENT CONTAINS FINE DETAIL WHICH MAY MAKE READING OF PHOTOCOPY DIFFICULT.
3.	THE ORIGINAL DOCUMENT CONTAINS COLOR, BUT DISTRIBUTION COPIES ARE AVAILABLE IN BLACK—AND—WHITE REPRODUCTION ONLY.
1 4.	THE INITIAL DISTRIBUTION COPIES CONTAIN COLOR WHICH WILL BE SHOWN IN BLACK-AND-WHITE WHEN IT IS NECESSARY TO REPRINT.
5.	LIMITED SUPPLY ON HAND: WHEN EXHAUSTED, DOGUMENT WILL BE AVAILABLE IN MICROFICHE ONLY.
☐ 6.	LIMITED SUPPLY ON HAND: WHEN EXHAUSTED DOCUMENT WILL NOT BE AVAILABLE.
1.	DOCUMENT IS AVAILABLE IN MICROFICHE ONLY.
8.	DOCUMENT AVAILABLE ON LOAN FROM CESTI (TT DOCUMENTS ONLY).
9.	
NBS 9/64	PROCESSOR:

THE PROPERTY OF PEDERAL ELECTRIC	CORP. ARE SYM ZONE	DESCRIPTION	DATE APPROVED
THE MANUFACTURE OR SALE OF APPARATUS WITHOUT PERMISSION.	HE BASIS FOR		
And the second s			
			No. of the contract of the con
			The state of the s
	APPROVALS SIGNATURE & DATE	PEDERAL ELECTRIC	CORPOHATION
9	DRAWN WILL FELICIES	PARAMUS INDUSTRIAL PARK	
	CHECKED & W. A. L. L. L.	A SUBSIDIARY	
	this warm with		A STATE OF THE STA
	ELECT	TEST DATA	
1	STDS	PHASE II	
USED ON		NOLUME VI	
APPLICATION			The second secon
	FEC	NO. DWG.	
INCLUDE CHEMICALLY APPLIED		14842 A 627	957
[₁₀]	OTHER	SIZE	The state of the s
		SCALE FEC NO.	SHEET

	NOMENCLATURE OR DESCRIPTION	NOMENCLATURE OR DESCRIPTION		PART OR IDENTIFYING NO.	
SEC IV	Radio Set MN-	Radio Set MN-503A Microwave	4,	4-1 to 4-198	
SEC V	Radio Set AN/NTRC-35	NTRC-35		5-1 to 5-8	
SEC VI	Radio Set AN/MRC-80	MRC-80		6-1 to 6-28	
SEC VII	Radio Set AN/MRC-85	MRC-85		7-1 to 7-22	
SEC VIII	Radio Set AN/FRC-39	FRC-39		8-1 to 8-19	
SEC IX	Power Generating System	ting System		9-1 to 9-72	
SEC X	Miscellaneous			10-1: to 10-3	
				-	
	1				
			The state of the s		
		2000年	CODE IDENT. NO	-	62719574
FRAL ELECT S INDUSTRIAL PARK NATIONAL TELPHONE	PEDERAL ELECTRIC CORPORATION PARAMUS INDUSTRIAL PARAMUS, NEW JESSEY OF INTERACTIONAL TELEMENT AND TELECLAR CORPORATION		DATE	SIZE FEC NO.	SHEET

BR II/81 Rev.

STATION GPA

BIG RALLY II PROJECT DATA SHEET

ransmission Path: From Station GPA	to Station GIM
TRANSMITTER "A"	EXPECTED ACTUAL
A. TX Klystron Beam Current	(35-85MA) 1. 5-3. 6 Units 3.5 Units
B. Power Output	Minimum +28 dbm +28,4 dbm
C. Transmitter RF Frequency	
1) Assigned Operating Freq.	8 <u>.325</u> GC
2) Measured Freq. (AFC ON)	+0.005% of 8.3232 GC Assigned Freq.
3) ACF PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 Div CW)	Minimum 9
4) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CCW)	Minimum 9
TRANSMITTER "B"	
A. TX Klystron Beam Current	(35-85MA) 1.5-3.6 Units 3.4 Units
B. Power Output	Minimum +28 dbm +28.6 dbm

^{*} Will not correct.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TEST

		EXPECTED	ACTUAL
Transmitter RF Frequency		40.5	
1) Assigned Operating Freq.			8.325GC
2) Measured Freq. (AFC ON)	_0.005% Assigned	of d Freq.	8.3316GC
3) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CW)	Minimur	m 9	_ <u>15</u>
4) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj.	Minimur	m 9	(*)

* Will not correct.

5 DIV CCW)

TESTER La Schripper
SUPERVISOR & Wency.

QUALITY ASSURANCE LL. Cavil
GEELA Seruld a Holme

BR II/81

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TEST

		SIATION GIA
ransm	ission Path: From Station	GPA to Station GTA
TR	ANSMITTER "A"	EXPECTED ACT
Α,	TX Klystron Beam Current	(35-85MA) 1.5-3.6 Units 2.65U
В.	Power Output	Minimum +28 dbm +27.8 dl
C.	Transmitter RF Frequency	
	1) Assigned Operating Freq.	8,380 G
	2) Measured Freq. (AFC ON)	†0.005% of 8.3816 Ge Assigned Freq.
	3) ACF PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 Div CW)	Minimum 9
	4) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CCW)	Minimum 9
TRA	ANSMITTER "B"	
A.	TX Klystron Beam Current	(35-85MA) 1.5-3.6 Units 3.3 Un
В.	Power Output	Minimum +28 dbm +28.0 db

Will not correct completely.

BR II/81

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TEST

		EXPECTED	ACTUAL
C. 7	Transmitter RF Frequency		
	1) Assigned Operating Freq.		8.380 GC
	2) Measured Freq. (AFC ON)	_0.005% of Assigned Freq.	8 <u>.3813</u> GC
	3) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CW)	Minimum 9	•
	4) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj.	Minimum 9	-(*)

* Will not correct completely.

5 DIV CCW)

DATE	14 November 1963	
TESTER (Schringele	a
SUPERVISOR	P. Sweeney.	×: !
QUALITY AS	SURANCE	Crion
GEEIA	e clapi	1

BR II/81 Rev.

BIG RALLY II PROJECT

DATA SHEET

		STATION GIM
ransm	ission Path: From Station GIM	to Station GPA
TRA	ANSMITTER "A"	EXPECTED ACTUAL
Α.	TX Klystron Beam Current	(35-85MA) 1.5-3.6 Units #3.3 Units
В.	Power Output	Minimum +28 dbm 28.7dbm
C.	Transmitter RF Frequency	
	1) Assigned Operating Freq.	8.135GC
	2) Measured Freq. (AFC ON)	†0.005% of 8.134605GC Assigned Freq.
	3) ACF PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 Div CW)	Minimum 9
	4) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CCW)	Minimum 9
TRA	NSMITTER "B"	
A.	TX Klystron Beam Current	(35-85MA) 1. 5-3. 6 Units 2.45 Units
В.	Power Output	Minimum +28 dbm 29_1 dbm

BR II/81 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TEST

		EXPECTED	ACTUAL
Transmitter RF Frequency			
1) Assigned Operating Freq.			8.135GC
2) Measured Freq. (AFC ON)	_0.005% Assigned		8.134738GC
3) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CW)	Minimun	n 9	_10_
4) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj.	Minimun	n 9	<u>18</u>

TESTER May
SUPERVISOR Pollen

QUALITY ASSURANCE | Boncher

GEEIA Rolph & Skriger

BR II/81 Rev.

BIG RALLY II PROJECT

DATA SHEET

Transmission Path: From Station G	TA to Station GPA
1. TRANSMITTER "A"	EXPECTED ACTUAL
A. TX Klystron Beam Current	(35-85MA) 1. 5-3. 6 Units 2.9 Units
B. Power Output	Minimum +28 dbm 29.5 dbm
C. Transmitter RF Frequency	
1) Assigned Operating Freq.	8,190 GC
2) Measured Freq. (AFC ON)	_0.005% of 8.190004 GC Assigned Freq.
3) ACF PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 Div CW)	Minimum 9
4) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CCW)	Minimum 9 10
TRANSMITTER "B"	
A. TX Klystron Beam Current	(35-85MA) 1. 5-3. 6 Units 3.2 Units
B. Power Output	Minimum +28 dbm 29.1 dbm

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TEST

EXPECT	CED ACTUAL
is.	
	8.190 GC
	8.1902960 GC
Assigned Freq.	
Minimum 9	_10

BR II/81

4) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CCW)

5 DIV CW)

Transmitter RF Frequency

1) Assigned Operating Freq.

2) Measured Freq. (AFC ON)

3) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj.

C.

Minimum 9

DATE 14 November 196 TESTER SUPERVISOR QUALITY ASSURANCE | Bricher GEELA Rolph & Gruger

BIG RALLY II PROJECT

DATA SHEET

		STATION GHO	<u></u>
Transm	ission Path: From Station Gl	io to Station GAO	
l. TR	ANSMITTER "A"	EXPECTED	ACTUÄL
A.	TX Klystron Beam Current	(35-85MA) 1.5-3.6 Units	2.9Units
В.	Power Output	Minimum +28 dhm	28.7dbm
C.	Transmitter RF Frequency		
	1) Assigned Operating Freq.		8.345GC
	2) Measured Freq. (AFC ON)	+0.005% of Assigned Freq.	3.344.76C
	3) ACF PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 Div CW)	Minimum 9	10
	4) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CCW)	Minimum 9	10
27 TRA	ANSMITTER "B"		
A.	TX Klystron Beam Current	(35-85MA) 1.5-3.6 Units	3.1 Units
В.	Power Output	Minimum +28 dbm	29.3 dbm v

BR II/81

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TEST

		EXPEC	red Actual
Transmitter RF Frequency			
1) Assigned Operating Freq			8 <u>.385</u> GC
2) Measured Freq. (AFC C	(N)	005% of signed Freq.	8.385.28 ^{GC}
3) AFC PULL-IN M1 Readi (Detune Mech. Freq. Ad 5 DIV CW)	0	nimum 9	10
4) AFC PULL-IN M1 Readi (Detune Mech. Freq. Ad	•	nimum 9	10

TESTER & January 1967
TESTER & Quinn
SUPERVISOR CAMBALL
QUALITY ASSURANCE M. Or f
GEELA Balph & Hauger

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TEST

		STATIC	ON GHO
Traus	mission Path: From Station	GHO to Station	GPE
. T	RANSMITTER "A"	EXPEC	TED ACTUAL
A	TX Klystron Beam Current	(35-85MA) 1.5-3.	6 Units 3.0 Units
В	Power Output	Minimum +28 di	29.4dbm
C	Transmitter RF Frequency		
	1) Assigned Operating Freq.		8.385 GC
	2) Measured Freq. (AFC ON)	±0.005% of Assigned Freq.	8.385.1.GC
	3) ACF PULL-IN MI Reading (Detune Mech. Freq. Adj. 5 Div CW)	Minimum 9	10
	4) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CCW)	Minimum 9	10
3/ T	RANSMITTER "B"		
A	TX Klystron Beam Current	(35-85MA) 1.5-3.	6 Units 2.4 Units
В	Power Output	Minimum +28 db	m * 26.4 dbm

BR II/81 Rev.

not within specifications.

BR II/81 Rev.

BIG RALLY II PROJECT

DATA SHEET

		EXPECTED	ACTUAL
Transmitter RF Frequency			
1) Assigned Operating Freq.			8.345 GC
2) Measured Freq. (AFC ON)		05% of gned Freq.	8.3439_GC
3) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CW)	Mini	mum 9	
4) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj.	Mini	mum 9	_10_

DALE	o vanuary 1904	<u> </u>
TESTER	J. Quinn	
SUPERVI	SOR CAVMALL.	
QUALITY	ASSURANCE	Conf
GEEIA	Rolph S. Krug	er

BR II/81 Rev.

EIG RALLY II PROJECT

DATA SHEET

			STATION_G	AG
Tra	nsmi	ission Path: From Station GA	G to Station GHO	
1.	TR/	ANSMITTER "A"	EXPECTED	ACTUAL
	A.	TX Klystron Beam Current	(35-85MA) 1.5-3.6 Un	its 3.2 Units
	В.	Power Output	Minimum +28 dhm	28,1 dbm
	C,	Transmitter RF Frequency		
		1) Assigned Operating Freq.		8.155 GC
		2) Measured Freq. (AFC ON)	±0.005% of Assigned Freq.	8 _• 155 GC
		3) ACF PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 Div CW)	Minimum 9	_10
		4) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CCW)	Minimum 9	_10
2/	TRA	ANSMITTER "B"		
	Α,	TX Klystron Beam Current	(35-85MA) 1.5-3.6 Un	its 2.8 Units
	B.	Power Output	Minimum +28 dbm	29.1 dbm

BR II/81 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TEST

		EXPECTED	ACTUAL
Transmitter RF Frequency		9 m. n	
1) Assigned Operating Freq.			8.155 GC
2) Measured Freq. (AFC ON)	_0. 0059 Assigne	6 of d Freq.	8.15432GC ** 720
3) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CW)	Minimu	m 9	_9
4) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj.	Minimu	m 9	9

** Does not meet specifications.

DATE 19 January 1964
TESTER James Jonghan
SUPERVISOR Randall C Packers
QUALITY ASSURANCE William & ST
GEEIA Ralph S. Knight
AFCS

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TEST

	STATION G	PE
Transmission Path: From Statio	on GPE to Station GHO	
1. TRANSMITTER "A"	EXPECTED	ACTUAL
A. TX Klystron Beam Current	(35-85MA) 1.5-3.6 Units	3.4 Units
B. Power Output	Minimum +28 dbm	28.9 dbm
C. Transmitter RF Frequency		İ
1) Assigned Operating Freq.		8.195 GC
2) Measured Freq. (AFC ON)	+0.005% of Assigned Freq.	8.19± GC 4708
3) ACF PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 Div CW)	Minimum 9	10 2
4) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CCW)	Minimum 9	_10
2/ TRANSMITTER "B"		
A. TX Klystron Beam Current	(35-85MA) 1.5-3.6 Units	2.9 Units
B. Power Output	Minimum +28 dbm	28.9 dbm

BR П/81 Rev.

* Out of Specs - 7 ok

BR II/81 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TEST

EXPECTED

ACTUAL

Transmitter	RF	Freq	uency
-------------	----	------	-------

1) A	asigned	Operating	Freq.
------	---------	-----------	-------

2) Measured Freq. (AFC ON)

3) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CW)

4) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DFV CCW)

8.195 GC +0.005% of 8.19\(\frac{1}{2}\) GC Assigned Freq. 5/2

Minimum 9

Minimum 9

10

10

* Out of Specs

DATE 10 Jan 64

TESTER

PERVISOR Sun PM

QUALITY ASSURANCE

GEEIA Relph S. Kruger

BR II/81 Rev.

BIG RALLY II PROJECT

DATA SHEET

A STATE OF THE STA	STATION	T.I.D.
Transmission Path: From Station 7	I.D. to Station	T.I.C.
1. TRANSMITTER "A"	EXPECTI	ED ACTUAL
A. TX Klystron Beam Current	(35-85MA) 1.5-3.6	Units 3.1 Units
B. Power Output	Minimum +28 dbm	429.9 dbm
C. Transmitter RF Frequency		
1) Assigned Operating Freq.		8.365 GC
2) Measured Freq. (AFC ON)	+0.005% of Assigned Freq.	8.3654560 GC
3) ACF PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 Div CW)	Minimum 9	_10
4) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CCW)	Minimum 9	_10
2/ TRANSMITTER "B"		
A. TX Klystron Beam Current	(35-85MA) 1.5-3.6	Units 3.4 Units
B. Power Output	Minimum +28 dbm	428.7 dbm

BR II/81 Rev.

BIG RALLY II PROJECT

DATA SHEET

1 (27)		EXPECTED	ACTUAL
C. Transmitter RF Frequency			
1) Assigned Operating Freq			GC GC
2) Measured Freq. (AFC C		% of ed Freq.	8.362200_GC
3) AFC PULL-IN M1 Readi (Detune Mech. Freq. Ad 5 DIV CW)	•	m 9	-10-
4) AFC PULL-IN M1 Readi (Detune Mech. Freq. Ad		m 9	20-

DAIE	2 8, Nov.	1963	
TESTER	July Thing	<u> </u>	
SUPERVI	SOR	Carte	4
QUALITY	ASSURAN	CE Patrido	dant
GEEIA	Ralph	l Kous	en
AFC5	and	7.10.9	1.//

BR II/81 R

BIG RALLY II PROJECT

DATA SHEET

		STATION TIC	
Transm	ission Path: From Station TIC	to Station TID	
1. TR	ANSMITTER "A"	EXPECTED	ACTUÄL
A.	TX Klystron Beam Current	(35-85MA) 1.5-3.6 Units	3.6 Units
в.	Power Output	Minimum +28 dbm	+28,3dbm
C.	Transmitter RF Frequency		
	1) Assigned Operating Freq.		8.175GC
	2) Measured Freq. (AFC ON)	⁺ 0.005% of Assigned Freq.	8 <u>.17352</u> GC
	3) ACF PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 Div CW)	Minimum 9	<u>10</u>
	4) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CCW)	Minimum 9	_10_
2, TR	ANSMITTER "B"		
A.	TX Klystron Beam Current	(35-85MA) 1.5-3.6 Units	3.6 Units
В.	Power Output	Minimum +28 dbm	+30.6 dbm

BR II/81 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TEST

	EXPEC	TED ACTUAL
Transmitter RF Frequency	4	
1) Assigned Operating Freq.		8.15 GC
2) Measured Freq. (AFC ON)	_0.005% of Assigned Freq.	8. <u>17504</u> GC
3) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CW)	Minimum 9	<u>9.5</u>
4) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj.	Minimum 9	<u>.lo</u>

DATE 126 NOVEMBER 1963

TESTER O

SUPERVISOR

QUALITY ASSURANCE Mon Con 2020

GEELA Serald 4 Holmes

BR II/81 Rev.

BIG RALLY II PROJECT

DATA SHEET

	STATION TKG
Cransmission Path: From Statis	on TKG to Station TAL
TRANSMITTER "A"	EXPECTED ACTUAL
A. TX Klystron Beam Current	(35-85MA) 1.5-3.6 Units 2.3 Units
B. Power Output	Minimum +28 dbm +29.0dbm
C. Transmitter RF Frequency	
1) Assigned Operating Freq.	8.305 GC
2) Measured Freq. (AFC ON)	+0.005% of *8.29864 GC Assigned Freq.
3) ACF PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 Div CW)	Minimum 9 10
4) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CCW)	Minimum 9 9.5
TRANSMITTER "B"	
A. TX Klystron Beam Current	(35-85MA) 1.5-3.6 Units 2.5 Units
B. Power Output	Minimum +28 dbm +28.5ibm

FEDERAL ELECTRIC CORPORATION BR II/81 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TEST

		EXI ECTED	MCTORA
Transmitter RF Frequency			
1) Assigned Operating Freq.			8-305 GC
2) Measured Freq. (AFC ON)		of Freq.	8.3048 GC
3) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CW)	Minimum	9	10
4) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CCW)	Minimum	9	<u>10`</u>

rester	and Hirting	Ċ	
SUPERVIS	1001	R Burl	rilge
YTLLAUG	ASSURANCE	sent Mal	Rower

DATE 12 December 1963

BR II/81 Rev.

BIG RALLY II PROJECT

DATA SHEET

		STATION TKG	
anem	ssion Path: From Station TKG	to Station TKA	
TR/	ANSMITTER "A"	EXPECTED	ACTUAL
A,	TX Klystron Beam Current	(35-85MA) 1.5-3.6 Units	2.7 Units
В.	Power Output	Minimum +28 dbm	<u>≠28.7</u> dbm
C.	Transmitter RF Frequency		
	1) Assigned Operating Freq.		8 <u>025</u> GC
	2) Measured Freq. (AFC ON)	+0.005% of Assigned Freq.	8 <u>0261</u> 3GC
	3) ACF PULL-IN Mi Reading (Detune Mech. Freq. Adj. 5 Div CW)	Minimum 9	_10
¥.	4) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CCW)	Minimum 9	9.5
TR/	ANSMITTER "B"		
. A.	TX Klystron Beam Current	(35-85MA) 1.5-3.6 Units	. 3.5 Units
в.	Power Output	Minimum +28 dbm	<u></u> ∕ 28 . 0dbm
Z	9		

BR II/81 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TEST

5 DIV CCW)

	HAT EQUED ACTUAL
Transmitter RF Frequency	
1) Assigned Operating Freq.	8 <u>315</u> GC
2) Measured Freq. (AFC ON	1)
3) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CW)	
4) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj.	

DATE 25 OCTOBER 1963

TESTER

SUPERVISOR-

QUALITY ASSURANCE Malbowin

GEELA Kolph S. Kruger

BR II/81 Rev.

BIG RALLY II PROJECT

DATA SHEET

					ST	ATION	TAI.	_
Transmis	sion I	Path:	From Station_	TAL	to	Station_	TKG	
					EXPE	CTED	ACTUAL	
. TRAN	SMITTE	gr "A"						
A.	TX K	lystron Be	eam Current	(35-85MA	1) 1.5-3.	5 Units 2.9	_Unit
В.	Power	Output		M	linimum	+28 dbm	+29	_dbm
G.	Transı	itter RF	Frequency			- 2-0		
	1) As	ssigned Or	erating Freq.			i de Parti	7.795	_GC
	2) Me	easured Fr	eq. (AFC ON)		0.005% Issigned		7.7924	_GC
	(1		M Reading th. Freq. Adj.	M	iinimum	9	10.	_
	, (I		M Reading th. Freq. Adj.	M	linimum	9	10.	_
TRAN	SMITTE	R "B"						
4.	TX Kly	stron Bes	m Current	(35-85MA	1.5-3.0	Units 2.6	_Unit
В.	Power	Output		Ņ	linimum	+28 dbm	+28.	3dlbm

BR II/81 Rev.

EXPECTED

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TEST

(Detune Mech. Freq. Adj.

5 DIV CCW)

Transmitter RF Frequency		
1) Assigned Operating Freq.		7.795 GC
2) Measured Freq. (AFC ON)	⁺ 0.005% of Assigned Freq.	7 <u>.7957</u> GC
3) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CW)	Minimum 9	_770_
4) AFC PULL-IN M1 Reading	Minimum 9	10

TESTER 1963

TESTER On all E. Mica

SUPERVISOR on all E. Mica

QUALITY ASSURANCE Millingster

GEELA Rolph S. Honger

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TEST

		STATION	TKA
ansm	ission Path: From Station_	TKA to Station	TXH
TR/	ANSMITTER "A"	EXPECT	ED ACTUAL
Α,	TX Klystron Beam Current	(35-85MA) 1.5-3.8	Units 2.5 Units
B.	Power Output	Minimum +28 dbm	/ 28.8dbm
C.	Transmitter RF Frequency		
	1) Assigned Operating Freq.		7.83500 GC
	2) Measured Freq. (AFC ON)	±0.005% of Assigned Freq.	7.83440 GC
	3) ACF PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 Div CW)	Minimum 9	<u>10</u>
	4) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CCW)	Minimum 9	. 10
TRA	NSMITTER "B"		
Α,	TX Klystron Beam Current	(35-85MA) 1.5-3.6	Units 2.5 Units

Power Output

Minimum +28 dbm / 30.1 dbm

BR 11/81

BR II/81 R

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TEST

67.	EAF	FCIED	VCIOWN
Transmitter RF Frequency		452	14
1) Assigned Operating Freq.		8.1	15500 GC
2) Measured Freq. (AFC ON)	_0.005% of Assigned Freq.	8.1	152 <u>31</u> GC
3) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CW)	Minimum 9		10 /
4) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj.	Minimum 9		9.5

DATE 22 OCTOBER, 1963

TESTER

SUPERVISOR

QUALITY ASSURANCE

GEEIA Ropped Kruger

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TEST

	STATIONT	KA
ransmission Path: From Station TK	A to Station TKR.	
TRANSMITTER "A"	EXPECTED	ACTUAL
A. TX Klystron Beam Current	(35-85MA) 1.5-3.6 Units	2.7 Units
B. Power Output	Minimum +28 dbm	28.1, dbm
C. Transmitter RF Frequency		
1) Assigned Operating Freq.	8	075 GC
2) Measured Freq. (AFC ON)		0739 GC
3) ACF PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 Div CW)	Minimum 9	9.5
4) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CCW)	Minimum 9	9.5
TRANSMITTER "B"		
A. TX Klystron Beam Current	(35-85MA) 1.5-3.6 Units	2.6 Units
B. Power Output	Minimum +28 dbm /	28.5 dbm

BR II/81 Rev.

BR 11/81

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TEST

	· ·	EXHECTED ACLOAL
Transmitter RF Frequency		
1) Assigned Operating Freq.		8.07506C
2) Measured Freq. (AFC ON)	_0.005% of Assigned Fr	8 <u>.07498</u> GC eq.
3) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CW)	Minimum 9	1000
4) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CCW)	Minimum 9	9.5

DATE 23 OCTOBER, 196

TESTER

SUPERVISOR

QUALITY ASSURANCE

GEEIA Ralph S. Kruger

BR II/81 Rev.

BIG RALLY II PROJECT

DATA SHEET

	STATION TKR
ransmission Path: From Station TKR	to Station TKA
Transmission Path: From Station TKR to Station TKA EXPECTED ACTUAL A. TX Klystron Beam Current (35-85MA) 1.5-3.6 Units 2.8 Unit B. Power Output Minimum +28 dbm /30.1,dbm C. Transmitter RF Frequency 1) Assigned Operating Freq. 2) Measured Freq. (AFC ON) 3) ACF PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 Div CW) 4) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 Div CW) 4) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 Div CW) 4) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 Div CW) 4) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CCW) 7) TRANSMITTER "B" A. TX Klystron Beam Current (35-85MA) 1.5-3.6 Units 2.75 Units (40.0 m)	
A. TX Klystron Beam Current B. Power Output C. Transmitter RF Frequency 1) Assigned Operating Freq. 2) Measured Freq. (AFC ON) 3) ACF PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 Div CW) 4) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CCW) TRANSMITTER "B" A. TX Klystron Beam Current	(35-85MA) 1. 5-3. 6 Units 2.8 Units
B. Power Output	Minimum +28 dbm /30.lidbm
C. Transmitter RF Frequency	
1) Assigned Operating Freq.	8.265 GC
2) Measured Freq. (AFC ON)	
(Detune Mech. Freq. Adj.	Minimum 9 10
(Detune Mech. Freq. Adj.	Minimum 9 10
TRANSMITTER "B"	
A. TX Klystron Beam Current	(35-85MA) 1.5-3.6 Units 2.75 Units
B. Power Output	Minimum +28 dbm /29.0 dbm

BR II/81 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TEST

5 DIV CCW)

			EXPECT	ED ACTUAL
C.	Transmitter RF Frequency			8.265
	1) Assigned Operating Freq.			SEES GC
	2) Measured Freq. (AFC ON)	0.005% of ssigned Freq.	8• ऽश्गा GG
	3) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CW)		(inimum 9	10
	4) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj.		finimum 9	10

DATE 22 OCTOBER 1963

TESTER

SUPERVISOR Coyn & L

QUALITY ASSURANCE Stan Pontill

GEEIA Ralphel Kruger

FEDERAL ELECTRIC CORPORATION BR II/81 Rev.

BIG RALLY II PROJECT

DATA SHEET

	STATION TER
Transmission Path: From Station	TKR to Station TIZ
1. TRANSMITTER "A"	EXPECTED ACTUAL
A. TX Klystron Beam Current	(35-85MA) 1. 5-3. 6 Units 2.90 Units
B. Power Output	Minimum +28 dbm +29.8 dbm
C. Transmitter RF Frequency	
1) Assigned Operating Freq.	8225 GC
2) Measured Freq. (AFC ON)	
3) ACF PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 Div CW)	Minimum 9 9 SEC. 10
4) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CCW)	Minimum 9 45 SEC 10
2. TRANSMITTER "B"	
A. TX Klystron Beam Current	(35-85MA) 1.5-3.6 Units3.10Units
B. Power Output	Minimum +28 dbm +29.3 dbm

DIC III

BR II/81 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TEST

ACTUAL EXPECTED Transmitter RF Frequency 1) Assigned Operating Freq. 8.225 GO _0.005% of 2) Measured Freq. (AFC ON) *8.22/12/1 GC Assigned Freq. 3) AFC PULL-IN M1 Reading Minimum 9 15 SEC. 70 (Detune Mech. Freq. Adj. 5 DIV CW) 15 SEC. 4) AFC PULL-IN M1 Reading Minimum 9 10

* OUT OF SPECIFICATION

(Detune Mech. Freq. Adj.

5 DIV CCW)

DATE 12 NOVEMBER 1963	_
rester 191	
SUPERVISOR & July	
QUALITY ASSURANCE). Molle	in
GEEIA VERTETED 17/12/63	0

BR II/81 Rev.

BIG RALLY II PROJECT

DATA SHEET

		STATION	TIZ
Trans	smission Path: From Station IIZ	to Station	TKR
1. 1	'RANSMITTER "A"	EXPECTED	ACTUAL
A	TX Klystron Beam Current	(35-85MA) 1.5-3.6 Unit	8 3.3 Units
F	3. Power Output	Minimum +28 dbm	4 28.5 dbm
	Transmitter RF Frequency 1) Assigned Operating Freq.		8.035 NUNISC
	2) Measured Freq. (AFC ON)	+0.005% of Assigned Freq.	8.0 <u>31.960</u> GC
	3) ACF PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 Div CW)	Minimum 9	_10
	4) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CCW)	Minimum 9	10
2. Т	'RANSMITTER "B"		
A	TX Klystron Beam Current	(35-85MA) 1.5-3.6 Unit	s 3.0 Units
E	B. Power Output	Minimum +28 dbm	4 29.0 dbm

BR II/81 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TEST

EXPECTED

ACTUAL

C. Transmitter RF Frequency

- 1) Assigned Operating Freq.
- 2) Measured Freq. (AFC ON)
- 3) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CW)
- 4) AFC PULL-IN M1 Reading (Detune Mech. Freq. Adj. 5 DIV CCW)

Assigned Freq.

Minimum 9

Minimum 9

10

DATE 10 NOVEMBER, 1963

TESTER \ Games

SUPERVISOR Faul formal

QUALITY ASSURANCE

GEEIA Pela I

LOUT OF SPECS

BR II/82 Rey.

BIG RALLY II PROJECT

DATA SHEET

į.			STATION CPA	
Tra	nsm	itter Path: From Station_	GIM GPA to Station GIH	and a second
	DE/	CEIVER A	EXPECTED	ACTUAL
1.	REC	SEIVER A		
	A.	RX Klystron Beam Current	15-32 MA	28 MA
	В.	1F Limiter Current (Meter M201 Reading)	(+19 will not meet require- ment) MAX -20	35_
	C.	1F AMP Noise Level	-17 ⁺ 3 db	20 db
	D.	Receiver 3 db Quieting Sensitivity	MAX -85 dbm	-85 dbm
	E.	1F AMP Deviation Sensitivity	+3 to -3 db	_2 db
2.	REC	CEIVER B		
	Α.	RX Klystron Beam Current	15-32MA	-26 MA
	В.	1F Limiter Current (Meter M201 Reading)	(-19 will not meet require- ment) MAX -20	Pegged
	C.	1F AMP Noise Level	-17 ⁺ 3 db	19.2 -20.5 db
	D.	Receiver 3 db Quieting Sensitivity	MAX -85 dbm	-85.7 dbm
	E.	1F AMP Deviation Sensitivity	+3 to -3 db	_3 db
			DATE 12 November 1963	
			TESTER Was Chrinake	1
			SUPERVISOR / Swelmy	
			QUALITY ASSURANCE	Carol
			GEELA Derald a Mohn	ve 0'
BELOW.				

BRII/82

SITE GPA(GIM)

REF: DD/250 Item # 16

6 F b. 1964

REceiver 'B'.

C . I.F. Amp Noise Level

-17+ 3db

-19.2db

MC:mc

FEDERAL ELECTRIC CORPORATION BR II/82

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TEST

GPA STATION GTA GPA Transmitter Path: From Station to Station ACTUAL EXPECTED RECEIVER A .1. MA MA 15-32 MA A. RX Klystron Beam Current 1F Limiter Current (Meter (-19 will not meet require-3058 45 ment) MAX -20 M201 Reading) -17 + 3 db **■19.9** db 1F AMP Noise Level MAX -85 dbm Receiver 3 db Quieting Sensitivity -83.3dbm D. -3.1 db +3 to -3 db E. 1F AMP Deviation Sensitivity RECEIVER B 2. -25 MA 15-32 MA A. RX Klystron Beam Current 1F Limiter Current (Meter (-19 will not meet require-B. ment) MAX -20 M201 Reading) -17 + 3 db 1F AMP Noise Level _20_3db C. -81.9dbm MAX -85 dbm Receiver 3 db Quieting Sensitivity D. 1F AMP Deviation Sensitivity +3 to -3 db -3.0 db E. 14 November 1963 DATE TESTER SUPERVISOR QUALITY ASSURANCE GEEIA Derall 11.

BR II/82 Re

FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET MW-503A LOS STATION TEST

	exercity to the second	STATION GIM	18
ansm	itter Path: From Station_	GPA to Station GPA	
		EXPECTED	ACTUAL
RE	CEIVER A		
A.	RX Klystron Beam Current	15-32 MA	_30_MA
В.	1F Limiter Current (Meter M201 Reading)	(-19 will not meet require- ment) MAX -20	<u>-33</u>
C.	1F AMP Noise Level	-17 ⁺ 3 db	-17.9 db
D.	Receiver 3 db Quieting Sensitivity	MAX -85 dbm	-85.2dbm
E.	1F AMP Deviation Sensitivity	+3 to -3 db	2_db
RE	CEIVER B		
A.	RX Klystron Beam Current	15-32MA	24 MA
В.	1F Limiter Current (Meter M201 Reading)	(-19 will not meet require- ment) MAX -20	_40_
c.	1F AMP Noise Level	-17 ⁺ 3 db	-17.8 db
D.	Receiver 3 db Quieting Sensitivity	MAX -85 dbm	-86.7 dbm
E.	1F AMP Deviation Sensitivity	+3 to -3 db	4 db
		DATE 12 November 1963 TESTER MAN SUPERVISOR Processing	
		QUALITY ASSURANCE Box	chel
		GEEIA Ralph & Suge	<u> </u>

BR II/82

FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT

DATA SHEET

		STATION GTA	
ansm	itter Path: From Station_	GPA to Station GTA	
		EXPECTED	ACTUAL
RE	CEIVER A		
A.	RX Klystron Beam Current	15-32 MA	_28MA
В.	1F Limiter Current (Meter M201 Reading)	(-19 will not meet require- ment) MAX -20	Pegged
C.	1F AMP Noise Level	-17 ⁺ 3 db	-19.2 db
D.	Receiver 3 db Quieting Sensitivity	MAX -85 dbm	_86 dbm
E.	1F AMP Deviation Sensitivity	+3 to -3 db	_2.6 db
RE	CEIVER B		
Α.	RX Klystron Beam Current	15-32MA	78 MA
В.	1F Limiter Current (Meter M201 Reading)	(-19 will not meet require- ment) MAX -20	- 50
c.	1F AMP Noise Level	-17 ⁺ 3 db	_18_db
D.	Receiver 3 db Quieting Sensitivity	MAX -85 dbm	-86.7 dbm
E.	1F AMP Deviation Sensitivity	+3 to -3 db	_2 db
		the state of the s	cett
(1) · · · · · · · · · · · · · · · · · · ·		- Mary	

FEDERAL ELECTRIC CORPORATION BR II/82

Rev.

BIG RALLY II PROJECT

DATA SHEET

ısm	itter Path: From Station_	GHO to Station GAG	
		EXPECTED	ACTUAL
RE	CEIVER A		
A.	RX Klystron Beam Current	15-32 MA	25 MA
В.	1F Limiter Current (Meter M201 Reading)	(-19 will not meet require- ment) MAX -20	m ^c - <u>≴@</u> /Pegge
c.	1F AMP Noise Level	-17 ⁺ 3 db	-17.6db
D.	Receiver 3 db Quieting Sensitivity	MAX -85 dbm	-86.5 dbm
E.	1F AMP Deviation Sensitivity	+3 to -3 db	_1.7 db
REC	CEIVER B		
Α.	RX Klystron Beam Current	15-32MA	21 MA
в.	1F Limiter Current (Meter M201 Reading)	(-19 will not meet requirement) MAX -20	Pegged
c.	1F AMP Noise Level	-17 [±] 3 db	-18.2db
D.	Receiver 3 db Quieting Sensitivity	MAX -85 dbm	-85.5 dbm
E.	1F AMP Deviation Sensitivity	+3 to -3 db	-2.6 db
		DATE 8 January 1964 TESTER V Quinn	
		SUPERVISOR Council	
		QUALITY ASSURANCE M. ()	n'ol
		GEEIA Ralphel Kree	ies /

BR II/82 Rev

BIG RALLY II PROJECT

DATA SHEET

			STATION GHO	+
Tra	ansm	itter Path: From Station	GHO to Station GPF	3
			EXPECTED	ACTUAL
1.	RE	CEIVER A		
	A.	RX Klystron Beam Current	15-32 MA	
	В.	1F Limiter Current (Meter M201 Reading)	(-19 will not meet require- ment) MAX -20	_50
	c.	1F AMP Noise Level	-17 ⁺ 3 db	-18.2db
	D.	Receiver 3 db Quieting Sensitivity	MAX -85 dbm	-86.3dbm
	E.	1F AMP Deviation Sensitivity	+3 to -3 db	-2.3 db
2.	RE	CEIVER B		
	Α.	RX Klystron Beam Current	15-32MA	-19. MA
	В.	1F Limiter Current (Meter M201 Reading)	(-19 will not meet require- ment) MAX -20	<u>-50</u>
	c.	1F AMP Noise Level	-17 ⁺ 3 db	_19 db
	D.	Receiver 3 db Quieting Sensitivity	MAX -85 dbm	-85.7dbm
	E.	1F AMP Deviation Sensitivity	+3 to -3 db	-1.8 db
			DATE 8 January 1964 TESTER V. Quinn	
			SUPERVISOR Comalle	
			QUALITY ASSURANCE LU.	Un. J
			GEEIA Palah I Ber	101

FEDERAL ELECTRIC CORPORATION BR II/82

- 11

Rey.

4-43

BIG RALLY II PROJECT

DATA SHEET

			STATION GAG	
Tra	nsm:	itter Path: From Station	GAG to Station GHO	
1.	REC	CEIVER A	EXPECTED	ACTUAL
	A.		15-32 MA	
	в.	1F Limiter Current (Meter M201 Reading)	(-19 will not meet require- ment) MAX -20	<u>-50</u>
	c.	1F AMP Noise Level	-17 + 3 db	-19 db
	D.	Receiver 3 db Quieting Sensitivity	MAX -85 dbm	87.2dbm
	E.	1F AMP Deviation Sensitivity	+3 to -3 db	-2.3db
2.	REC	CEIVER B		
	A.	RX Klystron Beam Current	15-32MA	-27 MA
	в.	1F Limiter Current (Meter M201 Reading)	(-19 will not meet require- ment) MAX -20	-50
	C.	1F AMP Noise Level	-17 ⁺ 3 db	-19 db
	D.	Receiver 3 db Quieting Sensitivity	MAX -85 dbm	87.2 dbm
	E.	1F AMP Deviation Sensitivity	+3 to -3 db	-1.3db
			DATE 9 January 1964 TESTER SUPERVISOR Landell Sura QUALITY ASSURANCE William GEEIA Landell Surages AFCS	hord Rouge

BR II/82 Rev.

FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT

DATA SHEET

			STATI	ON GPI	£	_
ansm	itter Path: From Station_	GPE	to Station_	GHO		
REC	CEIVER A	\$3	EXPE	TED	AC	CUAL
A.	RX Klystron Beam Current		15-32 MA		21	_MA
в.	1F Limiter Current (Meter M201 Reading)	(-19 will ment)	I not meet re MAX -20	equire-	<u>-50</u>	-
c.	1F AMP Noise Level		-17 + 3 db		-19	_db
D.	Receiver 3 db Quieting Sensitivity		MAX -85 d	bm	-86	dbm
E.	1F AMP Deviation Sensitivity		+3 .to -3 db		-2.4	db
REC	CEIVER B					
Α.	RX Klystron Beam Current		15-32MA		-29	_MA
В.	1F Limiter Current (Meter M201 Reading)	(-19 will ment)	I not meet re MAX -20	equire-	-50	
c.	1F AMP Noise Level		-17 ⁺ 3 db		-19	_db
D.	Receiver 3 db Quieting Sensitivity		MAX -85 d	bm	-87	_d bm
E.	1F AMP Deviation Sensitivity		+3 to -3 dl)	-2.8	db
8		DATE TESTER_ SUPERVIS QUALITY	10 Jan 64 Mobert Cle SOR Longi ASSURANCE	New F C VIII Willow	5 . R. S	-
		GEEIA	Ralph S.	Kong	ger	0

FEDERAL ELECTRIC CORPORATION BR II/82

4-45

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TEST

			STAT	rion <u>t</u>	.I.D.
nsm	itter Path: From Station_	T.I.D.	to Station_	T.I.C.	
			EXP	ECTED	ACTUAL
REC	CEIVER A				
Α,	RX Klystron Beam Current		15-32 M	A 3.W.T.	23 23=#MA
в.	1F Limiter Current (Meter M201 Reading)		not meet MAX -20	require-	-24
c.	1F AMP Noise Level	* . 774	-17 + 3 d	b	-17.4 db
D.	Receiver 3 db Quieting Sensitivity		MAX -85	dbm	-89.4 dbm
E.	1F AMP Deviation Sensitivity		+3 to -3	db ·	-351.5db
RE	CEIVER B				
A.	RX Klystron Beam Current		15-32MA		*-31_MA
В.	1F Limiter Current (Meter M201 Reading)	and the second s	not meet MAX -20	require-	<u>-50</u>
c.	1F AMP Noise Level		-17 ⁺ 3 d	b	-19.5 db
D.	Receiver 3 db Quieting Sensitivity		MAX -85	dbm	= 88.6 dbm
E.	1F AMP Deviation Sensitivity		+3 to -3	db	1.3 db
		DATE	28 Nov. 19	363	
		TESTER	Matin)	2
		SUPERVIS	DE JUSTE	118	Cartes
		QUALITY	ASSURAN	E valore	Balent
±10.		GEEIA	Calph &	, ,	er
		AFCS (with	utdel	(

Sheet 1 of 1

FEDERAL ELECTRIC CORPORATION BR II/82

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TEST

STATION TIC From Station TIC. to Station TID Transmitter Path: ACTUAL EXPECTED RECEIVER A RX Klystron Beam Current 15-32 MA 26 MA (-19 will not meet require-1F Limiter Current (Meter B. -50 ment) MAX -20 M201 Reading) -17 + 3 db C. 1F AMP Noise Level -16.0db Receiver 3 db Quieting Sensitivity MAX -85 dbm -85.6dbm D. 1F AMP Deviation Sensitivity +3 to -3 db -I,Q db RECEIVER B 2-3 MA 15-32MA RX Klystron Beam Current (-19 will not meet require- Pegge Becow 1F Limiter Current (Meter B MAX -20 ment) M201 Reading) -17 + 3 db 1F AMP Noise Level -14.7 db MAX -85 dbm Receiver 3 db Quieting Sensitivity D. -87.6 dbm +3 to -3 db -1.8 db 1F AMP Deviation Sensitivity DATE 128 NOVEKBER 1363 TESTER SUPERVISOR/ QUALITY ASSURANCE Stanfondell GEEIA Berald a Holin

BR II/82 Rev.

BIG RALLY II PROJECT

DATA SHEET

	H			STATI	ON I	KG
r	nem	itter Path: From Station_	TKG	to Station	TAL	
	REC	CEIVER A		EXPE	CTED	ACTUAL
	A,	RX Klystron Beam Current		15-32 MA		25 MA
	В.	1F Limiter Current (Meter M201 Reading)	(-19 wi ment)	ll not meet r MAX -20	equire-	4_50
	C.	1F AMP Noise Level		-17 + 3 db		_17.6lb
	D.	Receiver 3 db Quieting Sensitivity		MAX -85	lbm	-86.4dbm
100	E.	1F AMP Deviation Sensitivity		+3 to -3 dl	•	-2.6 db
	. RE	CEIVER B				
	Α.	RX Klystron Beam Current		15-32MA		21- MA
	В.	1F Limiter Current (Meter M201 Reading)	(-19 wi ment)	II not meet r MAX -20	equire-	4 <u>-50</u>
	C.	1F AMP Noise Level		-17 ⁺ 3 db		-18.1 db
	D.	Receiver 3 db Quieting Sensitivity		MAX -85	lbm	-85.4 dbm
	E.	1F AMP Deviation Sensitivity		+3 to -3 d	b	-1.5 db
			DATE	12 Decem	ber 196	53
To the second			TESTER	Julyated	A - 1	9
1	T.		SUPERV	ISOB William	A A	Celverdas
			QUALITY	ASSURANC	sept 7	Jallower
4			GEEIA	Deroldy	Wohn	-

FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET

BR II/82 Rev.

		STATION TKG	1.
ransm	itter Path: From Station_	.TKG to Station TKA	
RE	CEIVER A	EXPECTED	ACTUAL
Α.	RX Klystron Beam Current	15-32 MA	24.0 MA
В.	1F Limiter Current (Meter M201 Reading)	(-19 will not meet require- ment) MAX -20	<u>-lto-o</u>
C.	1F AMP Noise Level	-17 ⁺ 3 db	-16.5 db
D.	Receiver 3 db Quieting Sensitivity	MAX -85 dbm	<u>−78</u> •0ibm
E.	1F AMP Deviation Sensitivity	+3 to -3 db	A.4 db
RE	CEIVER B		
Α.	RX Klystron Beam Current	15-32MA	26:0 MA
選手 (B) (87) 8 円 (22)	1F Limiter Current (Meter M201 Reading)	(-19 will not meet requirement) MAX -20	<u>-50.0</u>
c.	1F AMP Noise Level	-17 ⁺ 3 db	_15.0db
D.	Receiver 3 db Quieting Sensitivity	MAX -85 dbm	<u>-75.0</u> dbm
E.	1F AMP Deviation Sensitivity	+3 to -3 db	- 0.8 db
		DATE 25 OCTOBER 1963	
		SUPERVISOR SUPERVISOR	Pulmla 2
		QUALITY ASSURANCE MA	Chroses
		GEEIA Ralph Strang	10 S

BR II/82 Rev.

BIG RALLY II PROJECT

DATA SHEET

			STATION TA	L .
Tra	nsm	itter Path: From Station	. TAL to Station TK	o .
			EXPECTED	ACTUAL
1.	RE	CEIVER A		
	A.	RX Klystron Beam Current	15-32 MA	22 MA,
	В.	1F Limiter Current (Meter M201 Reading)	(-19 will not meet require- ment) MAX -20	<u>-50</u>
	C.	1F AMP Noise Level	-17 ⁺ 3 db	-19.2db
	D.	Receiver 3 db Quieting Sensitivity	MAX -85 dbm	_87_2dbm
	E.	1F AMP Deviation Sensitivity	+3 to -3 db	_1.8 db
2.	RE	CEIVER B		
	A.	RX Klystron Beam Current	15-32MA	23 MA
	В.	1F Limiter Current (Meter M201 Reading)	(-19 will not meet require- ment) MAX -20	50
	C.	1F AMP Noise Level	-17 ⁺ 3 db	_19.7db
	D.	Receiver 3 db Quieting Sensitivity	MAX -85 dbm	_87.78bm
	E.	1F AMP Deviation Sensitivity	+3 to -3 db	_2_3 db
			DATE 13 DECEMBER, 1963 TESTER James OC Harry SUPERVISOR James E In. QUALITY ASSURANCE July GEEIA Ralph & Bruge	unds

BR II/82 Rev.

BIG RALLY II PROJECT

DATA SHEET

			STATIO	N TKA	
Transmitter Path:	From Station_	TKA	to Station_	TKG	
Vi.			EXPEC	red	ACTUAL
1. RECEIVER A	-53.7				
A. RX Klystron Beam C	urrent		15-32 MA		2.0 MA,
B. 1F Limiter Current (M201 Reading)	(Meter	(-19 winent)	III not meet red MAX -20	quire- PE	CI, RX2 CGGED C3, 21
C. 1F AMP Noise Level			-17 ⁺ 3 db	-	17.5 db
D. Receiver 3 db Quietin	ng Sensitivity		MAX -85 db	m -	87.6 dbm
E. 1F AMP Deviation Se	ensitivity		+3 to -3 db		.7 db
2. RECEIVER B					
A. RX Klystron Beam C	urrent		15-32MA	- 1446.11 ·	-25 MA
B. 1F Limiter Current (M201 Reading)	(Meter	(-19 wi	III not meet rec MAX -20	quire- P	X1, RX2 EGGED. X3, 21
C. 1F AMP Noise Level			-17 ⁺ 3 db		-16.8db
D. Receiver 3 db Quietin	g Sensitivity		MAX -85 db	m .	-91.8dbm
E. 1F AMP Deviation Se	ensitivity		+3 to -3 db		•3 db
		TESTER	The state of the s	1 CH S	pete
		GEEIA _	Kalphis	Bruge	<u></u>

BR II/82 Rev.

BIG RALLY II PROJECT

DATA SHEET

	STATION T	KA .
Transmitter Path: From Station	TKA to Station Tr	(R
1. RECEIVER A	EXPECTED	ACTUAL
A. RX Klystron Beam Current	15-32 MA	MA,
B. 1F Limiter Current (Meter M201 Reading)	(-19 will not meet require- ment) MAX -20	- 31
C. 1F AMP Noise Level	-17 ⁺ 3 db	_18 db
D. Receiver 3 db Quieting Sensitivity	MAX -85 dbm	-88.7dbm
E. 1F AMP Deviation Sensitivity	+3 to -3 db	2.2 db
2. RECEIVER B		
A. RX Klystron Beam Current	15-32MA	-27 MA
B. 1F Limiter Current (Meter M201 Reading)	(-19 will not meet requirement) MAX -20	-29
C. 1F AMP Noise Level	-17 ⁺ 3 db	-18.9 db
D. Receiver 3 db Quieting Sensitivity	MAX -85 dbm	<u>-91.5 dbm</u>
E. 1F AMP Deviation Sensitivity	+3 to -3 db	1.8 db
	DATE 23 OCTOBER. 1963 TESTER CAMA TO SUPERVISOR CAMA STATE OF COMMENTS OF COMM	Lym

BR II/82 Rev.

BIG RALLY II PROJECT

DATA SHEET

			STATION TAK	1
Tr	ansm	itter Path: From Station_	TKR to Station TKA	*
			EXPECTED	ACTUAL
1.	RE	CEIVER A		
	A.	RX Klystron Beam Current	15-32 MA	23 MA,
	В.	1F Limiter Current (Meter M201 Reading)	(-19 will not meet requirement) MAX -20	-50
	C.	1F AMP Noise Level	-17 ⁺ 3 db	-17.7 db
	D.	Receiver 3 db Quieting Sensitivity	MAX -85 dbm	-89.0dbm
	E.	1F AMP Deviation Sensitivity	+3 to -3 db	-2.8 db
2.	RE	CEIVER B		
	A.	RX Klystron Beam Current	15-32MA	-2F.5MA
	В.	1F Limiter Current (Meter M201 Reading)	(-19 will not meet require- ment) MAX -20	50
	c.	1F AMP Noise Level	-17 ⁺ 3 db	_18.2db
	D.	Receiver 3 db Quieting Sensitivity	MAX -85 dbm	-88.4 dbm
	E.	1F AMP Deviation Sensitivity	+3 to -3 db	-1.8 db
			DATE 22 OCTOBER 1963	
			TESTER Fayn I & 9	-
			SUPERVISOR day of the	Sun
			QUALITY ASSURANCE	Mel !
	·		GEEIA Ralph S. Huger	

BR II/82 Rev.

BIG RALLY II PROJECT

DATA SHEET

	STATION T	R .
ransmitter Path: From Station	. TKR to Station TIZ	
RECEIVER A	EXPECTED	ACTUAL
A. RX Klystron Beam Current	15-32 MA	21.0 MA,
B. 1F Limiter Current (Meter M201 Reading)	(-19 will not meet require- ment) MAX -20	<u>_16.0</u>
C. 1F AMP Noise Level	-17 ⁺ 3 db	_18_0db
D. Receiver 3 db Quieting Sensitivity	MAX -85 dbm	_88,8lbm
E. 1F AMP Deviation Sensitivity	+3 to -3 db	-2.1 db
RECEIVER B		
A. RX Klystron Beam Current	15-32MA	-25.0 MA
B. 1F Limiter Current (Meter M201 Reading)	(-19 will not meet require- ment) MAX -20	<u>-50</u>
C. 1F AMP Noise Level	-17 ⁺ 3 db	_18_1db
D. Receiver 3 db Quieting Sensitivity	MAX -85 dbm	_88.2dbm
E. 1F AMP Deviation Sensitivity	+3 to -3 db	_1.3 db
	DATE 12 NOVEMBER 1963 TESTER SUPERVISOR	
	GEEIA VERIFIED 11/12/63	Bower

FEDERAL ELECTRIC CORPORATION BR II/82 Rev.

BIG RALLY II PROJECT

DATA SHEET

	STATION TIZ	
ansmitter Path: From Station	TIZ to Station TKR	
	EXPECTED	ACTUAL
RECEIVER A		
A. RX Klystron Beam Current	15-32 MA	22 MA, less than
B. 1F Limiter Current (Meter M201 Reading)	(-19 will not meet require- ment) MAX -20	
C. 1F AMP Noise Level	-17 ⁺ 3 db	-17.8 db
D. Receiver 3 db Quieting Sensitivity	MAX -85 dbm	_89_6 dbm
E. 1F AMP Deviation Sensitivity	+3 to -3 db	2.3 db
RECEIVER B		
A. RX Klystron Beam Current	15-32MA	20 MA
B. 1F Limiter Current (Meter M201 Reading)	(-19 will not meet require- ment) MAX -20	less than -50 *
C. 1F AMP Noise Level	-17 ⁺ 3 db	-18.0 db
D. Receiver 3 db Quieting Sensitivity	MAX -85 dbm	-86.6 dbm
E. 1F AMP Deviation Sensitivity	+3 to -3 db	1.8 db
NOTE: METER OFFSCALE ON RX I POSITION	DATE 1 NOVEMBER, 1963	
	TESTER any forg Law	
	SUPERVISOR Faulfangel)
	QUALITY ASSURANCE	marke
	GEEIA SELLA	

BR II/83 F

BIG RALLY II PROJECT

DATA SHEET

Î				STAT	ION GPA		
Tran	smi	ission Patha: From Station	GPA	to Station	GIM		
1.	нол	T STANDBY CONFIGURATION	EXPE	CTED	R%	AC'	rua.
	A.	VSWR Measurement at TX Frequency	1.4:1	(16.7%)	4.4	1,10	
	В.	VSWR Measurement at RX Frequency	1.4:1		6.9	1.14	_a
2.	FRI	EQUENCY DIVERSITY CONFIGURA	TION		1.00		
	A.	VSWR Measurement at TX-A Frequency	1.4:1			-	_:1
	В.	VSWR Measurement at TX-B Frequency	1.4:1				_:1
	C.	VSWR Measurement at RX-A Frequency	1.4:1				_:1
	D.	VSWR Measurement at RX-B Frequency	1.4:1				_:1
3.	SPA	CE DIVERSITY CONFIGURATION					
	A.	Waveguide Run #1 1) VSWR Measurement at TX Frequency	1.4:1				_:1
		2) VSWR Measurement at RX Frequency	1.4:1		, W.		_:1
	в.	Waveguide Run #2					
		1) VSWR Measurement at TX Frequency	1.4:1				_:1
		2) VSWR Measurement at RX Frequency	1.4:1				_:1
			DATE	12 November	1963		
			TESTER	Un Sol	sendher		_
			SUPERVIS	OR L	eenes.		1.2
			QUALITY	ASSURANC	E U	(Ja	3
			GEEIA	Derald .	appolon	er	_
2		Sheet 1 of 1			11	-55	91

BR II/83 Rev.

BIG RALLY II PROJECT

DATA SHEET

H				STATI	ON	GPA
Tra	nsm	ission Path: From Station_	GPA	to Station	1	GTA
1.	нол	STANDBY CONFIGURATION	EXPE	CTED	R%	ACTUAL VSWR
	A.	VSWR Measurement at TX Frequency	1.4:1	(16.7%)	1.8	1.03 1
	В.	VSWR Measurement at RX Frequency	1.4:1		3.0	1.06 :1
2.	FRI	EQUENCY DIVERSITY CONFIGURAT	TION			
	A.	VSWR Measurement at TX-A Frequency	1.4:1			:1
	В.	VSWR Measurement at TX-B Frequency	1.4:1			:1
	C.	VSWR Measurement at RX-A Frequency	1.4:1			:1 -2.8
	D.	VSWR Measurement at RX-B Frequency	1.4:1			:1
3.	SPA	CE DIVERSITY CONFIGURATION				
	Α.	Waveguide Run #1 1) VSWR Measurement at TX Frequency	1.4:1			:1
		2) VSWR Measurement at RX Frequency	1.4:1			:1 }
	В.	Waveguide Run #2 1) VSWR Measurement at TX Frequency	1.4:1			:1
	dia.	2) VSWR Measurement at RX Frequency	1.4:1	-		:1
			DATE	12 November	r 1963	
			TESTER	Upul Jely	eydle	^
Y.			SUPERVIS	OR J.	reeney.	
			QUALITY	ASSURANCE		Crif
		Sheet 1 of 1	GEEIA	Zerald 4	Halm	nes !
	Linksgale	burger 1 Of 1			1	4-56

BR II/83 Rey.

BIG RALLY II PROJECT

DATA SHEET

1		TYDE OFFICE		A OFFITT
НОЛ	STANDBY CONFIGURATION	EXPECTED	7.4	ACTU.
A.	VSWR Measurement at TX Frequency	1.4:1 (16.7%)	R% 6	VSWR 1.10 1
В.	VSWR Measurement at RX Frequency	1.4:1	7.6	1.14.1
FRI	QUENCY DIVERSITY CONFIGURA	TION		
Α.	VSWR Measurement at TX-A Frequency	1.4:1		:1
В.	VSWR Measurement at TX-B Frequency	1.4:1		1
C.	VSWR Measurement at RX-A Frequency	1.4:1		:1
D.	VSWR Measurement at RX-B Frequency	1.4:1		
SPA	CE DIVERSITY CONFIGURATION			
A.	Waveguide Run #1 1) VSWR Measurement at TX Frequency	1.4:1		:1
	2) VSWR Measurement at RX Frequency	1.4:1		•1
В.	Waveguide Run #2			
	1) VSWR Measurement at TX. Frequency	1.4:1		:1
	2) VSWR Measurement at RX Frequency	1.4:1	· · · · · · · · · · · · · · · · · · ·	
		DATE 12 Novemb	er 1963	
		TESTER ///	1 X X1	Un .
		SUPERVISOR L	Elen	/
		QUALITY ASSURA	NCE 7	Bouched
		GEEIA Polah	6 18	es.
	Sheet 1 of 1		1	4-57

BR II/83 Rev.

4-58

BIG RALLY II PROJECT

DATA SHEET

	agency of the second se				No.
но	r standby configuration	EXPE	CTED		ACTU
A.	VSWR Measurement at TX Frequency	1.4:1	(16.7%)	R %	VSWR 1.13 1
В.	VSWR Measurement at RX Frequency	1.4:1		_9.2	1.20 1
FRI	EQUENCY DIVERSITY CONFIGURA	TION			
A.	VSWR Measurement at TX-A Frequency	1.4:1			:1
в.	VSWR Measurement at TX-B Frequency	1.4:1			:1
C.	VSWR Measurement at RX-A Frequency	1.4:1			:1
D.	VSWR Measurement at RX-B Frequency	1.4:1		(:1
SPA	ACE DIVERSITY CONFIGURATION				
A.	Waveguide Run #1 1) VSWR Measurement at TX Frequency	1.4:1			:1
	2) VSWR Measurement at RX Frequency	1.4:1			.1
В.	Waveguide Run #2				
	1) VSWR Measurement at TX Frequency	1.4:1			:1
	2) VSWR Measurement at RX Frequency	1.4:1			:1
		DATE 1	November	1963 (),	
		TESTER	Mh	X Du	ry
		SUPERVIS	OR 8	S Frei	ilto
對後		QUALITY	ASSURANC	E J BA	nchel
		GEEIA	alph. S.	Luca	
	Sheet 1 of 1	-	7		

FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

					STA	TION	GHO	
Tra	nsmi	ssion Patha: From	Station_	GHO	to Statio	n c	AG	H .
				EXPE	CTED		AC	TUAL
1.	НОЛ	STANDBY CONFIGURATION	ON			R%	VSWF	1 11-12
	A.	VSWR Measurement at Trequency	K	1.4:1	(16.7%)	4.7	1.10	124
	B.,	VSWR Measurement at Ri Frequency	ζ ,	1.4:1		5	1.11	_1
2.	FRE	QUENCY DIVERSITY CON	FIGURAT	ION				
	Α.	VSWR Measurement at Transporter Transporte	K-A	1.4:1				_:1
	В.	VSWR Measurement at Transcription of the Transcript	К-В	1.4:1		-		_:1
	C.	VSWR Measurement at Ri Frequency	K-A	1.4:1				_:1
	D.	VSWR Measurement at Ri Frequency	K-B	1.4:1				_:1
3.	SPA	CE DIVERSITY CONFIGUR	RATION					
	A.	Waveguide Run #1 1) VSWR Measurement at Frequency	TX	1.4:1			-	_:1
		2) VSWR Measurement at Frequency	RX	1.4:1				_:1
	B.	Waveguide Run #2						
		1) VSWR Measurement at Frequency	TX	1.4:1				_:1
		2) VSWR Measurement at Frequency	RX	1.4:1				_:1
				DATE _	8 Jan	uary 196	64	
				TESTER	Vegin	nn.		
				SUPERVIS	OR Cdv	mall	2	1
				QUALITY	ASSURAN	CE Ill.	an'	S
				GEEIA	alph &	. three	ger	
		Sheet	1 of 1					

4-59

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

ransm	ission Patha: From Station	GHO	_ to Station	a	GPE
. но	r standby configuration	EXPE	CTED	R%	ACTUA VSWR
A.	VSWR Measurement at TX Frequency	1.4:1	(16.7%)	6.3	1.13 1
В.	VSWR Measurement at RX Frequency	1.4:1		4.3	1.09 1
FRI	EQUENCY DIVERSITY CONFIGURAT	ION			
Α.	VSWR Measurement at TX-A Frequency	1.4:1			:1
В.	VSWR Measurement at TX-B Frequency	1.4:1			:1
C.	VSWR Measurement at RX-A Frequency	1.4:1		<u> </u>	:1
D.	VSWR Measurement at RX-B Frequency	1.4:1			:1
SPA	ACE DIVERSITY CONFIGURATION				
Α.	Waveguide Run #1 1) VSWR Measurement at TX Frequency	1.4:1			:1
	2) VSWR Measurement at RX Frequency	1.4:1			:1
B.		Syrine .			
	1) VSWR Measurement at TX Frequency	1.4:1			.1:1
	2) VSWR Measurement at RX Frequency	1.4:1			:1
Kala I		DATE _	8 Jani	uary 196	4
		TESTER	V. Qui	nn	1
		SUPERVIS	OR CHUT	nable	-,
		QUALITY	ASSURANC	CE M.	Couah
		GEEIA	Calpholi	Also.	ares.
4	Sheet 1 of 1	-	7		

4-60

BIG RALLY II PROJECT

DATA SHEET

		STA	TION GAG	
Trans	smission Patha: From Station	GAG to Static	on GHO	
l e	OT STANDBY CONFIGURATION	EXPECTED		ACTUAL
A	4	1.4:1 (16.7%)	R%	VSWR 1.08 1
В	S. VSWR Measurement at RX Frequency	1.4:1	2.8	1.05 1
2. <u>F</u>	REQUENCY DIVERSITY CONFIGURA	TION		
A	VSWR Measurement at TX-A Frequency	1.4:1		:1
В	VSWR Measurement at TX-B Frequency	1.4:1		:1
C	VSWR Measurement at RX-A Frequency	1.4:1		:1
D	VSWR Measurement at RX-B Frequency	1.4:1		:1
3. <u>S</u>	PACE DIVERSITY CONFIGURATION			•
А	Waveguide Run #1 1) VSWR Measurement at TX Frequency 2) VSWR Measurement at RX	1.4:1 1.4:1		:1
	Frequency	****		•
B	3. Waveguide Run #2 1) VSWR Measurement at TX Frequency	1.4:1		:1
	2) VSWR Measurement at RX Frequency	1.4:1		:1
		DATE 9 January	1964	A
		TESTER /CAN	1 Jones	Land
		SUPERVISOR Kaus	lel C. Fix	les of
		QUALITY ASSURAN	CEWill	in K. Hely
	Sheet 1 of 1	GEEIA Rulph	Houge	25
		00		11 ()

FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT

DATA SHEET

	-4		STAT	rion G	PE
'ransmi	ssion Patha: From Station	GPE	_ to Station	n GH	0 ,
. нол	STANDBY CONFIGURATION	EXPE	CTED	R%	ACTUAL VSWR
Α.	VSWR Measurement at TX Frequency	1.4:1	(16.7%)	3.2	1.06 1
В.	VSWR Measurement at RX Frequency	1.4:1		3.4	1.07 1
FRE	EQUENCY DIVERSITY CONFIGURAT	CION			
A.	VSWR Measurement at TX-A Frequency	1.4:1			:1.
В.	VSWR Measurement at TX-B Frequency	1.4:1			:1
C.	VSWR Measurement at RX-A Frequency	1.4:1			:1
D.	VSWR Measurement at RX-B Frequency	1.4:1			:1
. SPA	CE DIVERSITY CONFIGURATION				
Α,	Waveguide Run #1 1) VSWR Measurement at TX Frequency	1.4:1			:1
	2) VSWR Measurement at RX Frequency	1.4:1			:1
В.	Waveguide Run #2				
	1) VSWR Measurement at TX Frequency	1.4:1	*		:1
	2) VSWR Measurement at RX Frequency	1.4:1			:1
		DATE _	10,Ja	n 64	
		TESTER	Mobert	allen	des
		SUPERVIS	OR June	OV	14
		QUALITY	ASSURANC	CE (N) Plan	in P. West
		GEEIA A	5.40	1 LL	8
	Sheet 1 of 1		aspn.		4-62

BIG RALLY II PROJECT

DATA SHEET

1				STAT	CION 1	I.D.
Tra	nsm	ission Patha: From Station	T.I.D.	to Station	ı Te	I.C.
ı.	но	r standby configuration	EXPE	CTED	R %	ACTUAL VSWR
	A.	VSWR Measurement at TX Frequency	1.4:1	(16.7%)	6.5	<u>.1.14</u> :1
	В.	VSWR Measurement at RX Frequency	1.4:1		_6.2_	1.13_1
	FRI	EQUENCY DIVERSITY CONFIGURA	TION N/A			
	A.	VSWR Measurement at TX-A Frequency	1.4:1			:1
	В.	VSWR Measurement at TX-B Frequency	1.4:1			:1
	C.	VSWR Measurement at RX-A Frequency	1.4:1			:1
	D.	VSWR Measurement at RX-B Frequency	1.4:1			:1
	SPA	CE DIVERSITY CONFIGURATION				
	A.	Waveguide Run #1 1) VSWR Measurement at TX Frequency	1.4:1			:1
		2) VSWR Measurement at RX Frequency	1.4:1			:1
	В.	Waveguide Run #2				
		1) VSWR Measurement at TX Frequency	1.4:1			:1
		2) VSWR Measurement at RX Frequency	1.4:1			:1
			DATE	28. Nov	1963	
			TESTER	Juliation		
			SUPERVIS	ORfund	12	later.
			QUALITY	ASSURANC	Entick	Bolunt
			GEEIA_	Palph &	Bru	er
		Sheet 1 of 1	AFCS C	antell	uddell	4-63

BR II/83 Rev.

BIG RALLY II PROJECT

DATA SHEET

	4				STA	TION TI	C
Tra	nsmi	ssion Path:	From Station	TIC	_ to Statio	m TIF	<u> </u>
1.	нол	STANDBY CONFIG	GURATION	EXPE	CTED	R%	ACTUAL
	A.	VSWR Measurement Frequency	at at TX	1.4:1	(16.7%)	3%	1.06 1
	В.	VSWR Measurement	at at RX	1.4:1		10%	1.22 1
2.	FRE	QUENCY DIVERSIT		ATION			
	Α.	VSWR Measurement Frequency	t at TX-A	1.4:1		NA	NA:1
	В.	VSWR Measurement	at at TX-B	1.4:1		NA	<u> </u>
	C.	VSWR Measurement	at at RX-A	1.4:1		MA	p/A:1
	D.	VSWR Measurement	t at RX-B	1.4:1		Alu	<u>DA:</u> 1
3.	SPA	CE DIVERSITY CO	NFIGURATION				
	A.	1) VSWR Measurer Frequency		1.4:1		N/A_	<u>D /A</u> :1
		2) VSWR Measurer Frequency	nent at RX	1.4:1		N/A_	U/A:1
	В.	Waveguide Run #2 1) VSWR Measurer Frequency	ment at TX	1.4:1		D/A_	N/A:1
		2) VSWR Measures Frequency	ment at RX	1.4:1		NA	N 14:1
				DATE 🕸	& Norwa	when 13	063
				TESTER	(Cyring)	X ORE	1000
				SUPERVIS			
				QUALITY		1 1	
			Sheet 1 of 1	GEEIA	Scrald	(a Har	me

BR II/83 Rev.

BIG RALLY II PROJECT

DATA SHEET

	i i				STAT	'ION	TKG	
Tra	nsmi	ission Path:	From Station_	TKG	_ to Station	1	TAL	
		State 1		EXPE	CTED		ACT	UAL
1.	HOT	r standby config	URATION			R%	VSWR	
	A.	VSWR Measurement Frequency	at TX	1.4:1	(16.7%)	N/A	N/A	1
	В.	VSWR Measurement Frequency		1.4:1		N/A	N/A	1
2.	FRE	EQUENCY DIVERSITY	Y CONFIGURAT	TION				
	A.	VSWR Measurement Frequency	at TX-A	1.4:1		N/A	N/A	1
	в.	VSWR Measurement Frequency	at TX-B	1.4:1		N/A	N/A	:1
	C.	VSWR Measurement Frequency	at RX-A	1.4:1		N/A	N/A	1
	D.	VSWR Measurement Frequency	at RX-B	1.4:1		N/A	N/A	1
3.	SPA	CE DIVERSITY CON	FIGURATION					
	A.	Waveguide Run #1						
	te to	1) VSWR Measurem Frequency	ent at TX	1.4:1		3.5%	1.08	1
		2) VSWR Measurem Frequency	ent at RX	1.4:1		3.9%	1.08	:1
	В.	Waveguide Run #2						
		1) VSWR Measurem Frequency		1.4:1		6.0%	1.13	:1
		2) VSWR Measuren Frequency	nent at RX	1.4:1		6.0%	1.13	1
				DATE	14 Decem	ber 196	3	-
				TESTER	July: The		<u> </u>	_
				SUPERVIS	ORtellian	PA	whendere	2
				QUALITY	ASSURANC	Esyl	Mathrey	9
1				GEEIA /	ralla 4	John		
			Sheet 1 of 1				4-6:	5

BR II/83 Rev

BIG RALLY II PROJECT

DATA SHEET

	ission Path::	From Station	TKG	_ to Station	TKA	
			EXPE	CTED		ACTUAL
	r standby config				R%	VSWR
Α,	VSWR Measurement	at TX	1.4:1	(16.7%)	N/a	.N/A 1
B.	VSWR Measurement Frequency	at RX	1.4:1		N/A	N/A 1
FRI	EQUENCY DIVERSIT	Y CONFIGURA	TION			
Α.	VSWR Measurement Frequency	at TX-A	1.4:1		5%A	1,70 :1
В.	VSWR Measurement	at TX-B	1.4:1		_5/5%	1,70_:1
c.	VSWR Measurement Frequency	at RX-A	1.4:1		8.0%	1.17:1
D.	VSWR Measurement Frequency	at RX-B	1.4:1		6.0%	1.13 :1
SPA	CE DIVERSITY CON	FIGURATION				
Α.	Waveguide Run #1 1) VSWR Measurem Frequency	ent at TX	1,4:1		N/A	N/A_:1
	2) VSWR Measurem	ent at RX	1.4:1		N/A ·	
В.	Waveguide Run #2					
	1) VSWR Measurem Frequency 2) VSWR Measurem		1.4:1		N/A	N/A :1
	Frequency	ient at KX	1,4:1		N/A	N/A_:1
			DATE	25 OCTOBER]	1963	
			TESTER	Jan H. 17	1	2
			SUPERVIS	OR JULY	gin K.	Andred
			QUALITY	ASSURANC	Eum	albowis
		Sheet 1 of 1	GEEIA	Ca Can'S	Bire	July July

FEDERAL ELECTRIC CORPORATION BR II/83 Rev

BIG RALLY II PROJECT

DATA SHEET

	STATION_	TAL
n TAL	to Station	TKG
EXPE	CTED	ACTU
N/A	R%	VSWR
1.4:1	(16. 7%)	a
1.4:1		:1
ATION N/	· ·	
1,4:1		:1
1,4:1		:1
1.4:1		:1
1,4:1		:1
		•
1.4:1	5%	1.10 :1
1.4:1	6%	1.12
1, 4:1	6.6%	1.14:1
1,4:1	1,%	7.08:1
DATE	13 DECEMBER, 1963	
TESTER	William .	
SUPERVIS	OR Vanall E	mina.
QUALITY	ASSURANCE	Chemintes
GEEIA /	Pelph S. Him	aer
· · · · · · · · · · · · · · · · · · ·		4-67
	EXPE N/A 1.4:1 1.4:1 1.4:1 1.4:1 1.4:1 1.4:1 DATE TESTER SUPERVIS QUALITY	EXPECTED N/A 1.4:1 (16.7%) 1.4:1 1.4:1 1.4:1 1.4:1 1.4:1 DATE 13 DECEMBER, 1963 TESTER TESTER 13 DECEMBER, 1963

BIG RALLY II PROJECT

DATA SHEET

				STAT	ION TKA	- A
nsmi	ssion Path:	From Station_	TKA	to Station	TKG	
нол	STANDBY CONFIGU	RATION	EXPE	CTED	R%	ACTUA VSWR
Α.	VSWR Measurement Frequency	at TX	1.4:1	(16. 7%)		
В.	VSWR Measurement Frequency	at RX	1.4:1			a
FRE	QUENCY DIVERSITY	CONFIGURAT	CION	(TKA-	TKG)	
A.,	VSWR Measurement Frequency	at TX-A	1.4:1		5.2	:1
В.	VSWR Measurement Frequency	at TX-B	1.4:1		1,.6_	:1
C.	VSWR Measurement Frequency	at RX-A	1.4:1		6.5	1.13:1
D.	VSWR Measurement Frequency	at RX-B	1.4:1		-6.5-	-1,13:1
SPA	CE DIVERSITY CONF	IGURATION				
A.	Waveguide Run #1 1) VSWR Measureme Frequency	nt at TX	1.4:1			:1
	2) VSWR Measureme Frequency	nt at RX	1.4:1		·	:1
В.	Waveguide Run #2 1) VSWR Measureme Frequency	nt at TX	1.4:1			:1
	2) VSWR Measureme Frequency	ent at RX	1.4:1			:1
			DATE	24 OCTOBER,	7963	
			TESTER	Vainer &	gonos	and
			SUPERVIS	OR frame	1 cx.b.	· · · · ·
		•	QUALITY	ASSURANCI		lugietie
			GEEIA	a bah &	Greene	ri
	S	heet 1 of 1			4	-68

BR II/83 Rev.

BIG RALLY II PROJECT

DATA SHEET

				- ¥ -	5 - 4 5 5	KR
HO?	T STANDBY CONFIGUR	ATION	EXP	ECTED		ACTUA
A,	VSWR Measurement at Frequency		1.4:	1 (16.7%)	R%	vswr 1
B.	VSWR Measurement at Frequency	RX	1.4:	1		a'
FRI	EQUENCY DIVERSITY C	CONFIGU	RATION			
	VSWR Measurement at Frequency		1.4:	ı		:1
В.	VSWR Measurement at Frequency	тх-в	1.4:1			:1
C.	VSWR Measurement at Frequency	RX-A	1,4:1	ı		:1
D.	VSWR Measurement at Frequency	RX-B	1.4:1			.1:1
SPA	ACE DIVERSITY CONFIC	GURATIO	N	TKA (T	KR)	
Α.	Waveguide Run #1					
	1) VSWR Measurement Frequency	at TX	1.4:1		11 %	1.24:1
	2) VSWR Measurement Frequency	at RX	1.4:1		8.2%	1.18:1
B.	Waveguide Run #2					1.
Content	1) VSWR Measurement Frequency	at TX	1.4:1		4.9%	1.11:1
	2) VSWR Measurement Frequency	at RX	1.4:1		9.0%	1.08:1
			DATE _	A OCTOBER	1963)	A +
			TESTER	Janus Y	t for	Star
			SUPERVI	SOR Jay re	DO HA	Jusan j
			QUALITY	ASSURANC	:E <i>}\\\\\</i>	Munselte
			GEEIA	Erlph S.	Bugo	5
	She	eet 1 of 1	1			4-69

BR II/83 Rev.

BIG RALLY II PROJECT

DATA SHEET

nsm	ission Path : From Station	TKR to St	ation TKA	
110	T. CTANDDY CONTROL AMYON	EXPECTED		ACTUA
	r standby configuration		R%	VSWR
A.	VSWR Measurement at TX Frequency	1.4:1 (16.7	%)· N/A	.N/A 1
В.	VSWR Measurement at RX Frequency	1.4:1	N/A	N/A_1
FR	EQUENCY DIVERSITY CONFIGURATION	TION		
Α.	VSWR Measurement at TX-A Frequency	1.4:1	B/A	<u>N/A</u> :1
В.	VSWR Measurement at TX-B Frequency	1.4:1	_ N/A_	
C.	VSWR Measurement at RX-A Frequency	1.4:1	N/A	_N/A_:1
D.	VSWR Measurement at RX-B Frequency	1.4:1	N/A	
SPA	ACE DIVERSITY CONFIGURATION			•
A.	Waveguide Run #1 "A"			
	1) VSWR Measurement at TX Frequency	1.4:1	5%	1.15 :1
	2) VSWR Measurement at RX Frequency	1.4:1	4%	1.08 :1
B.	Waveguide Run #2 *B*			
	1) VSWR Measurement at TX Frequency	1.4:1	3.4%	1.07 :1
	2) VSWR Measurement at RX Frequency	1.4:1	3.2%	1.07 :1
		DATE 24 OCT	OBER 1963	
		TESTER Can	J. J.	<u> </u>
		SUPERVISOR	12/2	400
		QUALITY ASSUR	ANCE In	GARP
		GEEIA (liffor	el Cessin	Lilley
	Sheet 1 of 1			4/70

BR II/83 Rev.

BIG RALLY II PROJECT

DATA SHEET

nsmission Path : From Station	TKR	to Statio	n	TIZ
HOT STANDBY CONFIGURATION	EXPE	CTED		ACTU
Anna de la companya della companya della companya della companya de la companya della companya d			R%	VSWR
A. VSWR Measurement at TX Frequency	1.4:1	(16.7%)	N/A	N/A_1
B. VSWR Measurement at RX Frequency	1.4:1		N/A	<u>N/A</u> :1
FREQUENCY DIVERSITY CONFIGURA	TION			
A. VSWR Measurement at TX-A Frequency	1.4:1		N/A	_N/A_:1
B. VSWR Measurement at TX-B Frequency	1.4:1		N/A	<u>N/A</u> :1
C. VSWR Measurement at RX-A Frequency	1.4:1		N/A	
D. VSWR Measurement at RX-B Frequency	1.4:1		N/A	<u>N/A</u> :1
SPACE DIVERSITY CONFIGURATION				
A. Waveguide Run #1				
1) VSWR Measurement at TX Frequency	1.4:1		2.5%	1:104 :1
2) VSWR Measurement at RX Frequency	1.4:1		8.2%	1:117 :1
B. Waveguide Run #2				
1) VSWR Measurement at TX Frequency	1.4:1		4.0%	1:108:1
2) VSWR Measurement at RX Frequency	1.4:1		4.0%	1:108 :1
	DATE _	12 NO	VEMBER 196	53
	TESTER	JJ.	In	
	SUPERVIS	OR 9	- In	
	QUALITY	ASSURAN	(E)M	Bowin
	GEEIA V	ERIFIED 11,	12/63	. 0
Sheet 1 of 1				4-71

FEDERAL ELECTRIC CORPORATION BR II/83 Rev.

BIG RALLY II PROJECT

DATA SHEET

1					
TTO	T OT AND DAY CONTRACTO AMION	EXPE	CTED		ACTU
HO	r standby configuration			R%	VSWR
A.	VSWR Measurement at TX Frequency	1.4:1	(16.7%)		t <u>.</u> t
В.	VSWR Measurement at RX Frequency	1.4:1		;	tt
FRI	EQUENCY DIVERSITY CONFIGURAT	rion			
A.	VSWR Measurement at TX-A Frequency	1.4:1			:1
В.	VSWR Measurement at TX-B Frequency	1.4:1			<u>.</u>
C.	VSWR Measurement at RX-A Frequency	1.4:1			<u>.</u>
D.	VSWR Measurement at RX-B Frequency	1.4:1			1
SPA	CE DIVERSITY CONFIGURATION				
A.	Waveguide Run #1				
	1) VSWR Measurement at TX Frequency	1.4:1		10%	1.22
	2) VSWR Measurement at RX Frequency	1.4:1		2.2%	1.04
В.	Waveguide Run #2				
	1) VSWR Measurement at TX Frequency	1.4:1		5.6%	1.11
	2) VSWR Measurement at RX Frequency	1.4:1	\	5.4%	1.11_:
	NOTE: ABOVE MEASUREMENTS MADE WITH GAS BARRIER ON WAVEGUIDE	DATE 10	NOVEMBER O	1963 med	an)
		SUPERVIS	1	20	i
			1	E SINN	Minn &
		-		2 CON	ungingues.
			ASSURANC	EOI	n)
	Sheet 1 of 1		/		4-72

BR II/84 Rev.

BIG RALLY II PROJECT

DATA SHEET

		ST	ATION GPA	100
nsmi	ssion Path: From Station GPA	to Stati	on GIM	
	REQUIREMENT		INITIAL IF OK	
"A"	AC POWER FAILURE			
A.	Patch Panel Equip Alarm Lights		. Mc	
В.	External Alarms Energized		he	
C.	"A" Diversity Path Alarm Light		hic	
D.	"A" Power Supply Alarm Lamp Lights (where applicable)		ne	
E.	Audible Alarm		me.	
F.	Hot-Standby & Space Diversity. The "A" Fault and "B" Inservice Lamps on the SW/O Control Units Lit		mc	
11B11.	AC POWER FAILURE			
Ā.	Patch Panel Equip Alarm Lights		me	
В.	External Alarms Energized		mc_	
C.	"B" Diversity Alarms Energized		· MC	
D.	"B" Power Supply Alarm Lamp Lights (where applicable)		MC	
E.	Audible Alarm		M e	
F.	Hot-Standby & Space Diversity. The "B" Fault & "A" Inservice Lamps on the SW/O Control Units Lit		me	

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

BR II/84 Rev.

. "A"	MODULATION ALARM	
Α.	"A" AFC Pilot Sensor Alarm	me
В.	Patch Panel Equip Alarm Lights	me
C.	External Alarms Energized	me
D.	Audible Alarm	me
Е.	Hot-Standby & Space Diversity. The "A" Fault & "B" Inservice Lamps on the SW/O Control Units (J1-J2) Lit	me
. "B"	MODULATION ALARM	
Α.	"B" AFC Pilot Sensor Alarm Lamp Lights	me
В.	Patch Panel Equip Alarm Lights	me
C.	External Alarms Energized	me
D.	Audible Alarm	me
Е.	Hot-Standby & Space Diversity. The "B" Fault and "A" Inservice Lamps on the SW/O Control Units (J1-J2) Lit	hre
. "A"	RF POWER ALARM	
A.	"A" AFC Meter Pulses	mc
В.	Patch Panel Equip Alarm Lights	Mo
C.	External Alarms Energized	me
D.	Audible Alarm	me
E.	Hot-Standby & Space Diversity. The "A" Fault & "B" Inservice Lamps on the SW/O Control Units	<i>1</i> 0 -
	(J1-72) Lit	me

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

BR II/84 Rey.

6.	"B"	RF	POWER	ALARM

- A/ "B" AFC Meter Pulses
- B. Patch Panel Equip Alarm Lights
- C. External Alarms Energized
- D. Audible Alarm
- E. Hot-Standby & Space Diversity.
 The "B" Fault & "A" Inservice
 Lamps on the SW/O Control Units
 (J1-J2) Lit

_	ne	
	me	
	luc	
	120	

mc

QUALITY ASSURANCE

GEEIA Derald a Holmes

BR II/84 Rev.

FEDERAL ELECTRIC CORPORATION

BIG RALLY II PROJECT

DATA SHEET

			STATION GPA
Tr	ınsmi	Ission Path: From Station GPA	to Station GTA
		REQUIREMENT	INITIAL IF OK
1.	"A"	AC POWER FAILURE	
	A.	Patch Panel Equip Alarm Lights	Mc
	B.	External Alarms Energized	lle
	C.	"A" Diversity Path Alarm Light	<u>the</u>
	D.	"A" Power Supply Alarm Lamp Lights (where applicable)	<u>the</u>
	E.	Audible Alarm	lue
	F.	Hot-Standby & Space Diversity. The "A" Fault and "B" Inservice Lamps on the SW/O Control Units Lit	<u>the</u>
2.	"B"	AC POWER FAILURE	
	Ä.	Patch Panel Equip Alarm Lights	the
	B.	External Alarms Energized	<u>In c</u>
	C.	"B" Diversity Alarms Energized	Me
	D.	"B" Power Supply Alarm Lamp Lights (where applicable)	<u>ine</u>
	E.	Audible Alarm	MC
	F.	Hot-Standby & Space Diversity. The "B" Fault & "A" Inservice Lamps on the SW/O Control Units Lit	me

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

BR II/84 Rev.

"A" MODULATION ALARM

- A. "A" AFC Pilot Sensor Alarm
- B. Patch Panel Equip Alarm Lights
- C. External Alarms Energized
- D. Audible Alarm
- E. Hot-Standby & Space Diversity.
 The "A" Fault & "B" Inservice
 Lamps on the SW/O Control Units
 (J1-J2) Lit

"B" MODULATION ALARM

- A. "B" AFC Pilot Sensor Alarm Lamp Lights
- B. Patch Panel Equip Alarm Lights
- C. External Alarms Energized
- D. Audible Alarm
- E. Hot-Standby & Space Diversity.
 The "B" Fault and "A" Inservice
 Lamps on the SW/O Control Units
 (J1-J2) Lit

"A" RF POWER ALARM

- A. "A" AFC Meter Pulses
- B. Patch Panel Equip Alarm Lights
- C. External Alarms Energized
- D. Audible Alarm
- E. Hot-Standby & Space Diversity.

 The "A" Fault & "B" Inservice
 Lamps on the SW/O Control Units
 (J1-J2) Lit

Me Me

Me

me

ine

lue

enc.

me

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

BR II/84 Rev.

6. "B" RF POWER ALARM

- A. "B" AFC Meter Pulses
- B. Patch Panel Equip Alarm Lights
- C. External Alarms Energized
- D. Audible Alarm
- E. Hot-Standby & Space Diversity.
 The "B" Fault & "A" Inservice
 Lamps on the SW/O Control Units
 (J1-J2) Lit

lue me me

lue

TESTER (M) Confueller

SUPERVISOR (Meeney).

QUALITY ASSURANCE M. Carofa Jr.

GEELA Serull a Malina

BR II/84 Rev.

BIG RALLY II PROJECT

DATA SHEET

			DIA	GIM	
Tra	nsm	ssion Path: From Station GIM	to Statio	n_GPA	
		REQUIREMENT		INITIAL IF O	K
1.	"A"	AC POWER FAILURE			
	A.	Patch Panel Equip Alarm Lights		RSK	
	B.	External Alarms Energized		RSK	
	C.	"A" Diversity Path Alarm Light		RSK	
	D.	"A" Power Supply Alarm Lamp Lights (where applicable)		RSK	
	E.	Audible Alarm		RSK	
	F.	Hot-Standby & Space Diversity. The "A" Fault and "B" Inservice Lamps on the SW/O Control Units Lit		RSK	
2.	"B"	AC POWER FAILURE			
	Ā.	Patch Panel Equip Alarm Lights		RSK	
	B.	External Alarms Energized		RSK	
	C.	"B" Diversity Alarms Energized		RSK	
	D.	"B" Power Supply Alarm Lamp Lights (where applicable)		RSK	
	E.	Audible Alarm		RSK	
	F.	Hot-Standby & Space Diversity. The "B" Fault & "A" Inservice Lamps on the SW/O Control Units Lit		RSK	

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

BR II/84 Rev.

3.	"A"	MODU	LATION	ALARM
		i		

- A. "A" AFC Pilot Sensor Alarm
- B. Patch Panel Equip Alarm Lights
- C. External Alarms Energized
- D. Audible Alarm
- E. Hot-Standby & Space Diversity.
 The "A" Fault & "B" Inservice
 Lamps on the SW/O Control Units
 (J1-J2) Lit

4. "B" MODULATION ALARM

- A. "B" AFC Pilot Sensor Alarm Lamp Lights
- B. Patch Panel Equip Alarm Lights
- C. External Alarms Energized
- D. Audible Alarm
- E. Hot-Standby & Space Diversity.
 The "B" Fault and "A" Inservice
 Lamps on the SW/O Control Units
 (J1-J2) Lit

5. "A" RF POWER ALARM

- A. "A" AFC Meter Pulses
- B. Patch Panel Equip Alarm Lights
- C. External Alarms Energized
- D. Audible Alarm
- E. Hot-Standby & Space Diversity.

 The "A" Fault & "B" Inservice
 Lamps on the SW/O Control Units
 (J1-J2) Lit

RSK

RSK

RSK

RSK

.

RSK

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

BR II/84 Rev.

6.	"B"	RF	POWER	ALARM

- A. "B" AFC Meter Pulses

 B. Patch Panel Equip Alarm Lights

 RSK
- C. External Alarms Energized RSK
- D. Audible Alarm
- E. Hot-Standby & Space Diversity.

 The "B" Fault & "A" Inservice
 Lamps on the SW/O Control Units
 (J1-J2) Lit

RSK

TESTER
SUPERVISOR
QUALITY ASSURANCE | Brucher
GEELA Ralph & Brugger

FEDERAL ELECTRIC CORPORATION BR II/84 BIG RALLY II PROJECT

DATA SHEET

CALLICA	sion Path: From Station G T A	to Station GPA
	REQUIREMENT	INITIAL IF OF
"A" .	AC POWER FAILURE	
A. 1	Patch Panel Equip Alarm Lights	_RSK
B. 1	External Alarms Energized	RSK
C.	"A" Diversity Path Alarm Light	RSK
D. 1	"A" Power Supply Alarm Lamp Lights (where applicable)	_RSK
E	Audible Alarm	RSK
	Hot-Standby & Space Diversity. The "A" Fault and "B" Inservice Lamps on the SW/O Control Units Lit AC POWER FAILURE	_RSK
Ä. I	Patch Panel Equip Alarm Lights	RSK
в. 1	External Alarms Energized	RSK
C. I	"B" Diversity Alarms Energized	RSK
D. 1	"B" Power Supply Alarm Lamp Lights (where applicable)	RSK
E. /	Audible Alarm	_RSK
. 7	Hot-Standby & Space Diversity. The "B" Fault & "A" Inservice	
	The "B" Fault & "A" Inservice Lamps on the SW/O Control Units Lit	RSK

BR II/84

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

"A" MODULATION ALARM

	MICE CALLETON TANKEN	
A.	"A" AFC Pilot Sensor Alarm	RSK
В.	Patch Panel Equip Alarm Lights	RSK
C.	External Alarms Energized	RSK
D.	Audible Alarm	RSK
E.	Hot-Standby & Space Diversity. The "A" Fault & "B" Inservice Lamps on the SW/O Control Units (J1-J2) Lit	_RSK
"B"	MODULATION ALARM	
A.	"B" AFC Pilot Sensor Alarm Lamp Lights	RSK
B.	Patch Panel Equip Alarm Lights	_RSK
c.	External Alarms Energized	RSK
D.	Audible Alarm	RSK
E.	Hot-Standby & Space Diversity. The "B" Fault and "A" Inservice Lamps on the SW/O Control Units (J1-J2) Lit	RSK
"A"	RF POWER ALARM	
A.	"A" AFC Meter Pulses	RSK
В.	Patch Panel Equip Alarm Lights	RSK
C.	External Alarms Energized	RSK
D.	Audible Alarm	RSK
E.	Hot-Standby & Space Diversity. The "A" Fault & "B" Inservice Lamps on the SW/O Control Units (J1-J2) Lit	
	(J1-14) Lit	RSK

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

BR II/84 Rev.

6.	"B"	RF	POWER	ALARM
----	-----	----	-------	-------

- A. "B" AFC Meter Pulses
- B. Patch Panel Equip Alarm Lights
- C. External Alarms Energized
- D. Audible Alarm
- E. Hot-Standby & Space Diversity.
 The "B" Fault & "A" Inservice
 Lamps on the SW/O Control Units
 (J1-J2) Lit

RCK		
min_	_	_

RSK

_RSK__

RSK

RSK

TESTER July SUPERVISOR SUPERVISOR SUPERVISOR Backet

GEEIA Ralphis Stager

BR II/84 Rev

FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT

DATA SHEET

					ST	ATION GHO	1. 1
Tra	nsmi	ssion Path:	From Station	GHO	to Stati	on GAG	
		REQUIREME	NT			INITIAL IF O	K
1.	"A"	AC POWER FAILU	RE				
	A.	Patch Panel Equip	Alarm Lights			RSM	
	B.	External Alarms E	nergized			RSK	
	C.	"A" Diversity Path	Alarm Light			RSK	
	D.	"A" Power Supply (where applica		nts		RSK	
	E.	Audible Alarm				RSK	
	F.	Hot-Standby & Space The "A" Fault and Lamps on the SW/	"B" Inservice	Lit		RSK	
2.	"B"	AC POWER FAILU	RE				
	Ă.	Patch Panel Equip	Alarm Lights			RSK	
	B.	External Alarms E	nergized			RSK	
	C.	"B" Diversity Alar	ms Energized			_RSK	3
	D.	"B" Power Supply (where applica		nts		RSK	
	E.	Audible Alarm				RSK	,
	F.	Hot-Standby & Space The "B" Fault & "					
		Lamps on the SW/	O Control Units I	it		RSK	

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

BR II/84 Rev.

•	"A"	MODULATION ALARM	
	A.	"A" AFC Pilot Sensor Alarm	RSK
	В.	Patch Panel Equip Alarm Lights	RSK
1	C.	External Alarms Energized	RSK
	D.	Audible Alarm	RSK
	E.	Hot-Standby & Space Diversity. The "A" Fault & "B" Inservice Lamps on the SW/O Control Units (J1-J2) Lit	RSK
	"B"	MODULATION ALARM	
	A.	"B" AFC Pilot Sensor Alarm Lamp Lights	RSK
	В.	Patch Panel Equip Alarm Lights	RSK
	C.	External Alarms Energized	RSK
	D.	Audible Alarm .	RSK
	E.	Hot-Standby & Space Diversity. The "B" Fault and "A" Inservice Lamps on the SW/O Control Units (J1-J2) Lit	RSK
	"A"	RF POWER ALARM	
	A.	"A" AFC Meter Pulses	RSK
	В.	Patch Panel Equip Alarm Lights	RSK
	C.	External Alarms Energized	RSK
	D.	Audible Alarm	RSK
	E.	Hot-Standby & Space Diversity. The "A" Fault & "B" Inservice Lamps on the SW/O Control Units (J1-J2) Lit	RSK
		And a series and a	NON.

BR II/84 Rev.

BIG RALLY II PROJECT

DATA SHEET

6.	"B"	\mathbf{RF}	POWER	ALARM

- "B" AFC Meter Pulses RSK Patch Panel Equip Alarm Lights B. RSK
- RSK C. External Alarms Energized
- Audible Alarm D. RSK
- E. Hot-Standby & Space Diversity. The "B" Fault & "A" Inservice Lamps on the SW/O Control Units RSK (J1-J2) Lit

DATE 8 January 1964
TESTER / Quinn
SUPERVISOR (dv Mahlen
QUALITY ASSURANCE M.Co.
GEELA Ralph & Kruger

FEDERAL ELECTRIC CORPORATION BR II/84 Rev.

BIG RALLY II PROJECT

DATA SHEET

STATIO	N GHO
Transmission Path: From Station GHO to Station	GPE
REQUIREMENT INT	rial if ok
1. "A" AC POWER FAILURE	
A. Patch Panel Equip Alarm Lights	RSK
B. External Alarms Energized	RSK
C. "A" Diversity Path Alarm Light	RSK
D. "A" Power Supply Alarm Lamp Lights (where applicable)	RSK
E. Audible Alarm	RSK
F. Hot-Standby & Space Diversity. The "A" Fault and "B" Inservice Lamps on the SW/O Control Units Lit	RSK
2. "B" AC POWER FAILURE	
A. Patch Panel Equip Alarm Lights	RSK
B. External Alarms Energized	RSK
C. "B" Diversity Alarms Energized	RSK
D. "B" Power Supply Alarm Lamp Lights (where applicable)	RSK
E. Audible Alarm	RSK
F. Hot-Standby & Space Diversity. The "B" Fault & "A" Inservice Lamps on the SW/O Control Units Lit	RSK

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

3.	"A"	MODULATION ALARM	
	A.	"A" AFC Pilot Sensor Alarm	RSK
	В.	Patch Panel Equip Alarm Lights	RSK
	C.	External Alarms Energized	RSK
i i vii	D.	Audible Alarm	RSK
	E.	Hot-Standby & Space Diversity. The "A" Fault & "B" Inservice Lamps on the SW/O Control Units (J1-J2) Lit	RSK
4.	"B"	MODULATION ALARM	
	A.	"B" AFC Pilot Sensor Alarm Lamp Lights	RSK
	В.	Patch Panel Equip Alarm Lights	RSK
	C.	External Alarms Energized	RSK
	\mathbf{D}_{ullet}	Audible Alarm	RSK
	E.	Hot-Standby & Space Diversity. The "B" Fault and "A" Inservice Lamps on the SW/O Control Units (J1-J2) Lit	RSK
5.	"A"	RF POWER ALARM	
	A.	"A" AFC Meter Pulses	RSK
	В.	Patch Panel Equip Alarm Lights	RSK
	C.	External Alarms Energized	RSK
	D.	Audible Alarm	RSK
	E.	Hot-Standby & Space Diversity. The "A" Fault & "B" Inservice Lamps on the SW/O Control Units	

(J1-J2) Lit

RSK

BR II/84

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

BR II/84 Rev.

6.	"B"	RF	POWER	ALARM
----	-----	----	-------	--------------

- A "B" AFC Meter Pulses
- B. Patch Panel Equip Alarm Lights
- C. External Alarms Energized
- D. Audible Alarm
- E. Hot-Standby & Space Diversity.

 The "B" Fault & "A" Inservice

 Lamps on the SW/O Control Units

 (J1-J2) Lit

RSK

RSK

RSK

RSK

RSK

DATE	8 J	January	1964		
TESTE	R 1/ (2)	win	ι		
SUPER	VISOR_	Com	able	<u></u>	,
QUALI	Y ASSU	URANCE	Me.	Car	ich
GEEIA	Roll	066	the	alsi	0

FEDERAL ELECTRIC CORPORATION BR II/84 Rev.

BIG RALLY II PROJECT

DATA SHEET

		STATION GAG	10
Transn	ission Path: . From Station GAG	to Station GHO	
1-7	REQUIREMENT	INITIAL IF OK	i .
1. <u>"A</u>	" AC POWER FAILURE		
A.	Patch Panel Equip Alarm Lights	RSK	
B.	External Alarms Energized	RSK	
C.	"A" Diversity Path Alarm Light	RSK	
D.	"A" Power Supply Alarm Lamp Lights (where applicable)	RSK	
E.	Audible Alarm	RSK	
F.	The "A" Fault and "B" Inservice Lamps on the SW/O Control Units Lit	RSK	
	" AC POWER FAILURE		
Α,	Patch Panel Equip Alarm Lights	RSK	
В.	External Alarms Energized	RSK	
C.	"B" Diversity Alarms Energized	RSK	
D.	"B" Power Supply Alarm Lamp Lights (where applicable)	RSK	
E.	Audible Alarm	R SK	
F.	The "B" Fault & "A" Inservice	201	
Calculated and Inches	Lamps on the SW/O Control Units Lit	RSK	

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

BR II/84 Rev.

3.	1	"A"	MOD	ULAT	ION	ALARM
	- 1					

- A. "A" AFC Pilot Sensor Alarm
- B. Patch Panel Equip Alarm Lights
- C. External Alarms Energized
- D. Audible Alarm
- E. Hot-Standby & Space Diversity.
 The "A" Fault & "B" Inservice
 Lamps on the SW/O Control Units
 (J1-J2) Lit

4. "B" MODULATION ALARM

- A. "B" AFC Pilot Sensor Alarm Lamp Lights
- B. Patch Panel Equip Alarm Lights
- C. External Alarms Energized
- D. Audible Alarm
- E. Hot-Standby & Space Diversity.

 The "B" Fault and "A" Inservice
 Lamps on the SW/O Control Units
 (J1-J2) Lit

5. "A" RF POWER ALARM

- A. "A" AFC Meter Pulses
- B. Patch Panel Equip Alarm Lights
- C. External Alarms Energized
- D. Audible Alarm
- E. Hot-Standby & Space Diversity.
 The "A" Fault & "B" Inservice
 Lamps on the SW/O Control Units
 (J1-J2) Lit

RSK

BR II/84 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

6.	"B"	RF	POWER	ALARM
----	-----	----	-------	-------

A. "B" AFC Meter Pulses

RSK

B. Patch Panel Equip Alarm Lights

RSK

C. External Alarms Energized

RSK

D. Audible Alarm

RSK -

E. Hot-Standby & Space Diversity.
The "B" Fault & "A" Inservice
Lamps on the SW/O Control Units
(J1-J2) Lit

RSK

DATE 9 January 1964
TESTER Green Jones
SUPERVISOR Kandall C. Trehist
QUALITY ASSURANCE Willem & Day
GEEIA Kalph & Krieger
AFCS

BR II/84 Rev.

BIG RALLY II PROJECT

DATA SHEET

		STA	TION GPE
Tra	ınşmi	ssion Path: From Station GPE to Station	on GHO
		REQUIREMENT	INITIAL IF OK
1.	"A"	AC POWER FAILURE	
	A.	Patch Panel Equip Alarm Lights	RSK
	B.	External Alarms Energized	RSK
	C.	"A" Diversity Path Alarm Light	RSK
	D.	"A" Power Supply Alarm Lamp Lights (where applicable)	RSK
	E.	Audible Alarm	RSK
	F.	Hot-Standby & Space Diversity. The "A" Fault and "B" Inservice Lamps on the SW/O Control Units Lit	RSK
2.	"B"	AC POWER FAILURE	
	Ā.	Patch Panel Equip Alarm Lights	RSK
A	В.	External Alarms Energized	RSK
	C.	"B" Diversity Alarms Energized	RSK
	D.	"B" Power Supply Alarm Lamp Lights (where applicable)	RSK
1	E.	Audible Alarm	RSK
	F.	Hot-Standby & Space Diversity. The "B" Fault & "A" Inservice Lamps on the SW/O Control Units Lit	RSK
		THE DATE OF THE DATE OF CHILD THE	- LLU-LL

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

BR II/84 Rev.

3.	"A"	MODULATION ALARM	
	A.	"A" AFC Pilot Sensor Alarm	RSK
	В,	Patch Panel Equip Alarm Lights	RSK
	C.	External Alarms Energized	RSK
	D.	Audible Alarm	RSK
	E.	Hot-Standby & Space Diversity. The "A" Fault & "B" Inservice Lamps on the SW/O Control Units (J1-J2) Lit	RSK
4.	"B"	MODULATION ALARM	
	A.	"B" AFC Pilot Sensor Alarm Lamp Lights	RSK
	B.	Patch Panel Equip Alarm Lights	RSK ·
	C.	External Alarms Energized	RSK
	D.	Audible Alarm	RSK
		Hot-Standby & Space Diversity. The "B" Fault and "A" Inservice Lamps on the SW/O Control Units (J1-J2) Lit	RSK
5.	"A"	RF POWER ALARM	
	Å.	"A" AFC Meter Pulses	RSK
	B.	Patch Panel Equip Alarm Lights	RSK
	C.	External Alarms Energized	RSK
	D	Audible Alarm	RSK .
	E.	Hot-Standby & Space Diversity. The "A" Fault & "B" Inservice Lamps on the SW/O Control Units (J1-J2) Lit	RSK

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

BR II/84 Rev.

	6.	"B"	RF	POWER	ALARM
--	----	-----	----	-------	-------

A.	"B" AFC Meter Pulses	RSK
В.	Patch Panel Equip Alarm Lights	RSK
C.	External Alarms Energized	RSK

D. Audible Alarm

E. Hot-Standby & Space Diversity.
The "B" Fault & "A" Inservice
Lamps on the SW/O Control Units
(J1-J2) Lit

RSK

DATE	10 Jar	64		
TESTER_	Nobert	aller	o to	>
SUPERVIS	OR Jung	el	ille	
QUALITY	ASSURAN	CE (illi- 9	()EE
GEEIA	Palah.	S &	Such	10
			1	

FEDERAL ELECTRIC CORPORATION BR II/84 Rev.

BIG RALLY II PROJECT

DATA SHEET

	1	<u> </u>		STATI	ON T.I.D.	17
Tra	insm	Ission Path:	From Station T.I.D.	to Station_	T.I.C.	
		REQUIREME	NT	IN	ITIAL IF OK	
1.	"A"	AC POWER FAILU	RE			
	A.	Patch Panel Equip	Alarm Lights		R.S.K	
	B.	External Alarms E	nergized		R.S.K	
	C.	"A" Diversity Path	Alarm Light		R.S.K	
	D.	"A" Power Supply (where applica	Alarm Lamp Lights ble)		R.S. K.	
	E.	Audible Alarm			R.S.K.	
	F.	Hot-Standby & Space The "A" Fault and Lamps on the SW/			R.S.K.	
2.	"B"	AC POWER FAILU	RE	2-		
	Ā.	Patch Panel Equip	Alarm Lights		R,S,K	
	B.	External Alarms E	nergized		R.S.K.	
	C.	"B" Diversity Alar	ms Energized		R.S.K.	
	D.	"B" Power Supply (where applical	Alarm Lamp Lights ble)		R.S.K.	
	E.	Audible Alarm			R.S.K	
	F.	Hot-Standby & Space The "B" Fault & " Lamps on the SW/6			R.S.K.	

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

BR II/84 Rev.

3.	"A"	MODULATION	ALARM

- A. "A" AFC Pilot Sensor Alarm
- B. Patch Panel Equip Alarm Lights
- C. External Alarms Energized
- D. Audible Alarm
- E. Hot-Standby & Space Diversity.
 The "A" Fault & "B" Inservice
 Lamps on the SW/O Control Units
 (J1-J2) Lit

4. "B" MODULATION ALARM

- A. "B" AFC Pilot Sensor Alarm Lamp Lights
- B. Patch Panel Equip Alarm Lights
- C. External Alarms Energized
- D. Audible Alarm
- E. Hot-Standby & Space Diversity.
 The "B" Fault and "A" Inservice
 Lamps on the SW/O Control Units
 (J1-J2) Lit

5. "A" RF POWER ALARM

- A. "A" AFC Meter Pulses
- B. Patch Panel Equip Alarm Lights
- C. External Alarms Energized
- D. Audible Alarm
- E. Hot-Standby & Space Diversity.
 The "A" Fault & "B" Inservice
 Lamps on the SW/O Control Units
 (J1-J2) Lit

RSK

R.S.K.

R.S.K

R.S.K.

R.S.K.

R.S.K.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

BR II/84 Rev.

6.	"B"	RF	POWER	ALARM
----	-----	----	-------	-------

- A. "B" AFC Meter Pulses
- B. Patch Panel Equip Alarm Lights
- C. External Alarms Energized
- D. Audible Alarm
- E. Hot-Standby & Space Diversity.
 The "B" Fault & "A" Inservice
 Lamps on the SW/O Control Units
 (J1-J2) Lit

R.S.K.

RSK_

R.S. K

R.S.K.

R.S.K.

DATE 28 Nov. 1963	
TESTER 9 Ditte	
SUPERVISOR Jussell & Early	
QUALITY ASSURANCE This Hand	
GEEIA Break & Houger	
MFCS Cada/Ruddell	

BIG RALLY II PROJECT

DATA SHEET

			STATI	ON IC
rans	mission Path:	From Station TIC	to Station_	TID
15.0	REQUIRE	ŒNT	11/2	ITIAL IF OK
. 11	A" AC POWER FAI	LURE		
A	. Patch Panel Equ	ip Alarm Lights		J.L.
В	External Alarms	Energized		J.L.
C	"A" Diversity Pa	ath Alarm Light		J.L.
D	. "A" Power Suppl (where appli	y Alarm Lamp Lights cable)		<u>J.L.</u>
E	. Audible Alarm			J.L.
F	The "A" Fault a Lamps on the SV	nd "B" Inservice V/O Control Units Lit		J.L.
in -	B" AC POWER FAI	LURE		
Á	. Patch Panel Equ	ip Alarm Lights		J.L
В	. External Alarms	Energized		J.L.
С	B" Diversity Al	arms Energized		J.L.
D	• "B" Power Suppl (where appli	y Alarm Lamp Lights cable)		J.L.
E	. Audible Alarm			J.L.
F	The "B" Fault &			J.L.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

BR	H\8	4	Rev.
			- 12

in the same	- 1	그렇게 하는 사람들이 되었다면 하는 사람들이 되었다면 하는 것이 없었다면 하는 것이 없었다면 하는 것이 없었다.	
3.	"A"	MODULATION ALARM	
	A.	"A" AFC Pilot Sensor Alarm	J.L.
	В.	Patch Panel Equip Alarm Lights	J.L.
	C.	External Alarms Energized	J.L.
	D.	Audible Alarm	J.L.
	E.	Hot-Standby & Space Diversity. The "A" Fault & "B" Inservice Lamps on the SW/O Control Units (J1-J2) Lit	J.L.
4.	"B"	MODULATION ALARM	
	A.	"B" AFC Pilot Sensor Alarm Lamp Lights	J.L.
	В.	Patch Panel Equip Alarm Lights	J.L.
	C.	External Alarms Energized	J.L.
	D.	Audible Alarm	J.L.
	E.	Hot-Standby & Space Diversity. The "B" Fault and "A" Inservice Lamps on the SW/O Control Units (J1-J2) Lit	J.L.
5.	"A"	RF POWER ALARM	
	A.	"A" AFC Meter Pulses	J.L.
	В.	Patch Panel Equip Alarm Lights	J.L.
	C.	External Alarms Energized	J.L.
	D.	Audible Alarm	J.L.
	E.	Hot-Standby & Space Diversity. The "A" Fault & "B" Inservice	

Lamps on the SW/O Control Units

(J1-J2) Lit

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

BR II/84 Rev.

6. "B" RF POWER ALARM

- A. "B" AFC Meter Pulses
- B. Patch Panel Equip Alarm Lights
- C. External Alarms Energized
- D. Audible Alarm
- E. Hot-Standby & Space Diversity.
 The "B" Fault & "A" Inservice
 Lamps on the SW/O Control Units
 (J1-J2) Lit

J.L. J.L. J.L.

J.L.

TESTER CARREN 1903

TESTER CARRENTE ON CONTROL OF CONTR

BR II/84 Rev.

BIG RALLY II PROJECT

DATA SHEET

					STAT	TION TKG	
Tra	nsmi	ission Path:	From Station_	TKG	to Station	TAL	
	\$	REQUIREME	NT]	NITIAL IF OK	
1.	"A"	AC POWER FAILU	RE				
4	A.	Patch Panel Equip	Alarm Lights			J.H.T.	
	B.	External Alarms E	nergized			J.H.T	
	C.	"A" Diversity Path	Alarm Light			2.14.1	
	D.	"A" Power Supply (where applical		ghts		-g: h.r_	
	E.	Audible Alarm				1,11.7	
	F.	Hot-Standby & Space The "A" Fault and Lamps on the SW/C	"B" Inservice	Lit		_):H.T.	
2.	"B"	AC POWER FAILU	RE	•			
	A.	Patch Panel Equip	Alarm Lights			9. H.T	
	B.	External Alarms Ex	nergized			-J. M.T.	
	C.	"B" Diversity Alar	ms Energized			9. H.Te	
	D.	"B" Power Supply . (where applical		thts		J. H.T	
	E.	Audible Alarm				9. H.T.	
	F.	Hot-Standby & Space The "B" Fault & ". Lamps on the SW/C	A" Inservice	Lit		J. H.T.	

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

BR II/84 Rev.

3.	"A"	MODU	LATION	ALARM

- A. "A" AFC Pilot Sensor Alarm
- B. Patch Panel Equip Alarm Lights
- C. External Alarms Energized
- D. Audible Alarm
- E. Hot-Standby & Space Diversity.
 The "A" Fault & "B" Inservice
 Lamps on the SW/O Control Units
 (J1-J2) Lit

4. "B" MODULATION ALARM

- A. "B" AFC Pilot Sensor Alarm Lamp Lights
- B. Patch Panel Equip Alarm Lights
- C. External Alarms Energized
- D. Audible Alarm
- E. Hot-Standby & Space Diversity.
 The "B" Fault and "A" Inservice
 Lamps on the SW/O Control Units
 (J1-J2) Lit

5. "A" RF POWER ALARM

- A. "A" AFC Meter Pulses
- B. Patch Panel Equip Alarm Lights
- C. External Alarms Energized
- D. Audible Alarm
- E. Hot-Standby & Space Diversity.
 The "A" Fault & "B" Inservice
 Lamps on the SW/O Control Units
 (J1-J2) Lit

	1 . 1
0	 الستاه
- 11	-

- J. W.T.
- J. H.T.
- y n 1
- g. V.T.

J. 7. T.

- 3.11.6
- J. N.T.
- J. H.T.
- J. Y.T.

J.H.T.

- Javate
- 9. W.T.
- J.H.T.
- J. H.T.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

6. "B" RF POWER ALARM

- A. "B" AFC Meter Pulses
- B. Patch Panel Equip Alarm Lights
- C. External Alarms Energized
- D. Audible Alarm
- E. Hot-Standby & Space Diversity.
 The "B" Fault & "A" Inservice
 Lamps on the SW/O Control Units
 (J1-J2) Lit

J. W.T. J. W.T. J. W.T.

J. N.T.

DATE	12 December	1963
TESTER	laby. The	-0-
SUPERVIS	OB William X	Devirable
	ASSURANCE	ne Malbaria
CEPIA /	D. 116 nz	1. 2

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

BR II/84 Rev.

STATION TKG

ransm	ission Path: From Station TKG	to Station TKA
	REQUIREMENT	INITIAL IF OK
"A'	'AC POWER FAILURE	
Α.	Patch Panel Equip Alarm Lights	DB
B.	External Alarms Energized	DB
C.	"A" Diversity Path Alarm Light	DB
D.	"A" Power Supply Alarm Lamp Lights (where applicable)	. DB
E.	Audible Alarm	DB
F.	Hot-Standby & Space Diversity. The "A" Fault and "B" Inservice Lamps on the SW/O Control Units Lit	N/A
"B'	'AC POWER FAILURE	
Α.	Patch Panel Equip Alarm Lights	db
В.	External Alarms Energized	
C.	"B" Diversity Alarms Energized	DB
D.	"B" Power Supply Alarm Lamp Lights (where applicable)	
E.	Audible Alarm	DB
F.	Hot-Standby & Space Diversity. The "B" Fault & "A" Inservice Lamps on the SW/O Control Units Lit	N/A

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

"A" MODULATION ALARM

BK	11/84	Rev.

	A.	"A" AFC Pilot Sensor Alarm	DB
	В.	Patch Panel Equip Alarm Lights	DB
	C.	External Alarms Energized	DB
	D.	Audible Alarm	DB
	E.	Hot-Standby & Space Diversity. The "A" Fault & "B" Inservice Lamps on the SW/O Control Units (J1-J2) Lit	N/A
4.	"B"	MODULATION ALARM	
	A	"B" AFC Pilot Sensor Alarm Lamp Lights	DB
	B.	Patch Panel Equip Alarm Lights	DR
	C.	External Alarms Energized	DB
	D.	Audible Alarm	DB
	E.	Hot-Standby & Space Diversity. The "B" Fault and "A" Inservice Lamps on the SW/O Control Units (J1-J2) Lit	N/A
			N/A
5.	"A"	RF POWER ALARM	
	A. ·	"A" AFC Meter Pulses	DB

Patch Panel Equip Alarm Lights

Hot-Standby & Space Diversity.
'The "A" Fault & "B" Inservice

Lamps on the SW/O Control Units

External Alarms Energized

Audible Alarm

(J1-72) Lit

B.

C.

D.

E.

4-107

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

	6.	"B"	RF	POWER	ALARM
--	----	-----	----	-------	-------

- A. "B" AFC Meter Pulses
- B. Patch Panel Equip Alarm Lights
- C. External Alarms Energized
- D. Audible Alarm
- E. Hot-Standby & Space Diversity.
 The "B" Fault & "A" Inservice
 Lamps on the SW/O Control Units
 (J1-J2) Lit

DB

BR II/84 Rev.

DB

DB

DB

N/A

DATE 25 OCTOBER 1963

CHERTICOR

SUPERVISOR

QUALITY ASSURANCE

GEELA

TESTER

4-108

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

STATION

TAL

BR II/84 Rev.

Transmission Path:

From Station

TAL

to Station

TKG

REQUIREMENT

1. "A" AC POWER FAILURE

- A. Patch Panel Equip Alarm Lights
- B. External Alarms Energized
- .C. "A" Diversity Path Alarm Light
- D. "A" Power Supply Alarm Lamp Lights (where applicable)
- E. Audible Alarm
- F. Hot-Standby & Space Diversity.
 The "A" Fault and "B" Inservice
 Lamps on the SW/O Control Units Lit

2. "B" AC POWER FAILURE

- A. Patch Panel Equip Alarm Lights
- B. External Alarms Energized ...
- C. "B" Diversity Alarms Energized
- D. "B" Power Supply Alarm Lamp Lights (where applicable)
- E. Audible Alarm
- F. Hot-Standby & Space Diversity.
 The "B" Fault & "A" Inservice
 Lamps on the SW/O Control Units Lit

INITIAL IF OK

RCG RCG RCG

RCG

RCG

COYO.

ECC CXX

RCG RCG

CD!

ROO

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

BR II/84

Rev.

3. "A" MODULATION ALARM

- A. "A" AFC Pilot Sensor Alarm
- B. Patch Panel Equip Alarm Lights
- C. External Alarms Energized
- D. Audible Alarm
- E. Hot-Standby & Space Diversity.
 The "A" Fault & "B" Inservice
 Lamps on the SW/O Control Units
 (J1-J2) Lit

4. "B" MODULATION ALARM

- A. "B" AFC Pilot Sensor Alarm Lamp Lights
- B. Patch Panel Equip Alarm Lights
- C. External Alarms Energized
- D. Audible Alarm
- E. Hot-Standby & Space Diversity.
 The "B" Fault and "A" Inservice
 Lamps on the SW/O Control Units
 (J1-J2) Lit

5. "A" RF POWER ALARM

- A. "A" AFC Meter Pulses
- B. Patch Panel Equip Alarm Lights
- C. External Alarms Energized
- D. Audible Alarm
- E. Hot-Standby & Space Diversity.
 'The "A" Fault & "B" Inservice
 Lamps on the SW/O Control Units
 (J1-12) Lit

RCG
RCG

CLM RCG

RCG
RCG
RCG

RCG

RCG RCG RCG

RCG

4-110

FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

BR II/84 Rev.

6. "B" RF POWER ALARM

- A. "B" AFC Meter Pulses
- B. Patch Panel Equip Alarm Lights
- C. External Alarms Energized
- D. Audible Alarm
- E. Hot-Standby & Space Diversity.
 The "B" Fault & "A" Inservice
 Lamps on the SW/O Control Units
 (J1-J2) Lit

RCG BCG RCG BCG

RCG

DATE 13 DECEMBER, 1963

TESTER

SUPERVISOR /

QUALITY ASSURANCE

GEELA Raph S. Thuger

4-111

BR II/84 Rev.

BIG RALLY II PROJECT

DATA SHEET

			STATION TKA
Tra	nsmi	ssion Path: From Station TKA	to Station TKG
		REQUIREMENT	INITIAL IF OK
1.	"A"	AC POWER FAILURE	
	A.	Patch Panel Equip Alarm Lights	<u>GK</u>
	B.	External Alarms Energized	<u>GK</u> .
	.C.	"A" Diversity Path Alarm Light	<u>GK</u>
	D.	"A! Power Supply Alarm Lamp Lights (where applicable)	<u>GK</u>
	E.	Audible Alarm	
	F.	Hot-Standby & Space Diversity. The "A" Fault and "B" Inservice Lamps on the SW/O Control Units Lit	N/A
2.	"B"	AC POWER FAILURE	
	A.	Patch Panel Equip Alarm Lights	GK
	В.	External Alarms Energized	GK
	C.	"B" Diversity Alarms Energized	GK
	D.	"B" Power Supply Alarm Lamp Lights (where applicable)	GK
	E.	Audible Alarm	
	F.	Hot-Standby & Space Diversity. The "B" Fault & "A" Inservice Lamps on the SW/O Control Units Lit	_N/A

BIG RALLY II PROJECT

DATA SHEET

1101	4001	•
	56	
		. 60

3.	'A'	MODULATION ALARM	
	A.	"A" AFC Pilot Sensor Alarm	GK
	B.	Patch Panel Equip Alarm Lights	GK
	C.	External Alarms Energized	GK
	D.	Audible Alarm	GK
	E.	Hot-Standby & Space Diversity. The "A" Fault & "B" Inservice Lamps on the SW/O Control Units (J1-J2) Lit	N/A
4.	"B"	MODULATION ALARM	
	A.	"B" AFC Pilot Sensor Alarm Lamp Lights	GK
	в.	Patch Panel Equip Alarm Lights	GK
	C.	External Alarms Energized	GK
•	D.	Audible Alarm	GK
	E.	Hot-Standby & Space Diversity. The "B" Fault and "A" Inservice Lamps on the SW/O Control Units (J1-J2) Lit	N/A
5.	"A"	RF POWER ALARM	
	A.	"A" AFC Meter Pulses	GK.
	B.	Patch Panel Equip Alarm Lights	GK
	C.	External Alarms Energized	GK
	D.	Audible Alarm	GK
	E.	Hot-Standby & Space Diversity. 'The "A" Fault & "B" Inservice Lamps on the SW/O Control Units (J1-72) Lit	N/A

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

BR II/84 Rev.

6. "B" RF POWER ALARM

- A. "B" AFC Meter Pulses
- B. Patch Panel Equip Alarm Lights
- C. External Alarms Energized
- D. Audible Alarm
- E. Hot-Standby & Space Diversity.
 The "B" Fault & "A" Inservice
 Lamps on the SW/O Control Units
 (J1-J2) Lit

1	GK	
	GK	
	GK	
	GK.	

N/A

DATE 123 OCTOBER, 1263
TESTER James Honoran
SUPERVISOR
QUALITY ASSURANCE Milley Bette
GEELA Rolphel Prenger

FEDERAL ELECTRIC CORPORATION BR II/84 Rev.

BIG RALLY II PROJECT

DATA SHEET

		는 그는 경험이 되었다. 그를 가는 이렇게 되었다.	• STATION_	TKA
Tra	nsmi	ssion Path: From Station TKA	to Station	TKR
		REQUIREMENT	INITIAL	IF OK
1.	"A"	AC POWER FAILURE		
	A.	Patch Panel Equip Alarm Lights	OK	
in the	B.	External Alarms Energized	OK	
	.C.	"A" Diversity Path Alarm Light	CK	9.45
	D.	"A" Power Supply Alarm Lamp Lights (where applicable)	OK	
	E.	Audible Alarm	OK	
	F.	Hot-Standby & Space Diversity. The "A" Fault and "B" Inservice Lamps on the SW/O Control Units Lit	OK	
2.	"B"	AC POWER FAILURE		
	A.	Patch Panel Equip Alarm Lights	OK	
	В.	External Alarms Energized	OK	
	C.	"B" Diversity Alarms Energized	OK	
	D.	"B" Power Supply Alarm Lamp Lights (where applicable)	OK	
	E.	Audible Alarm	OK	
	F.	Hot-Standby & Space Diversity. The "B" Fault & "A" Inservice Lamps on the SW/O Control Units Lit	OK_	
		그 보다 그 그 그는 그 그는 그는 그는 그는 그 가는 그는 것이 되었다. 그는 그는 그는 그는 그는 그는 그는 그는 그를 보다 그는 그를 보다 하는 것이다.		

BR II/84 Rev.

BIG RALLY II PROJECT

DATA SHEET

- 1			
3.	"A"	MODULATION ALARM	
	A.	"A" AFC Pilot Sensor Alarm	GK
	В.	Patch Panel Equip Alarm Lights	GK
	C.	External Alarms Energized	GK
	D.	Audible Alarm	GK
	E.	Hot-Standby & Space Diversity. The "A" Fault & "B" Inservice Lamps on the SW/O Control Units (J1-J2) Lit	GK
4.	"B"	MODULATION ALARM	
	A.	"B" AFC Pilot Sensor Alarm Lamp Lights	GK
	В.	Patch Panel Equip Alarm Lights	GK
	C.	External Alarms Energized	GK
	D.	Audible Alarm	GK
	E.	Hot-Standby & Space Diversity. The "B" Fault and "A" Inservice Lamps on the SW/O Control Units (J1-J2) Lit	GK
5.	"A"	RF POWER ALARM	
	Α.	"A" AFC Meter Pulses	GK
	В.	Patch Panel Equip Alarm Lights	GK
	C.	External Alarms Energized	GK
	D.	Audible Alarm	GK
	E.	Hot-Standby & Space Diversity. 'The "A" Fault & "B" Inservice Lamps on the SW/O Control Units	
		(J1-72) Lit	GK

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

BR II/84 Rev.

6.	"B"	RF	POW	ER	ALARM

A.	"B" AFC Meter Pulses	GK
В.	Patch Panel Equip Alarm Lights	GK
C.	External Alarms Energized	GK
D.	Audible Alarm	GK

E. Hot-Standby & Space Diversity.
The "B" Fault & "A" Inservice
Lamps on the SW/O Control Units
(J1-J2) Lit

GK

DATE _	2 OCTOBER, 1963
TESTER	James H Jongdran
SUPERVI	SOR Jayme I (Ja)
QUALITY	ASSURANCE Millingelie
GEELA	Polat & Huger

Rev.

FEDERAL ELECTRIC CORPORATION

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

STATION TKR to Station TKA Transmission Path: From Station TKR REQUIREMENT INITIAL IF OK "A" AC POWER FAILURE RCG Patch Panel Equip Alarm Lights RCG External Alarms Energized B. RCG "A" Diversity Path Alarm Light .C. RCG D. "A" Power Supply Alarm Lamp Lights (where applicable) RCG Audible Alarm E. Hot-Standby & Space Diversity. F. The "A" Fault and "B" Inservice RCG Lamps on the SW/O Control Units Lit "B" AC POWER FAILURE 2. RCG Patch Panel Equip Alarm Lights A. RCG External Alarms Energized B. RCG "B" Diversity Alarms Energized C. RCG "B" Power Supply Alarm Lamp Lights D. (where applicable) RCG Audible Alarm E. Hot-Standby & Space Diversity. F. The "B" Fault & "A" Inservice RCG

Lamps on the SW/O Control Units Lit

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

	3.	"A"	MODULATION	ALARM
--	----	-----	------------	-------

- A. "A" AFC Pilot Sensor Alarm
- B. Patch Panel Equip Alarm Lights
- C. External Alarms Energized
- D. Audible Alarm
- E. Hot-Standby & Space Diversity.
 The "A" Fault & "B" Inservice
 Lamps on the SW/O Control Units
 (J1-J2) Lit

4. "B" MODULATION ALARM

- A. "B" AFC Pilot Sensor Alarm Lamp Lights
- B. Patch Panel Equip Alarm Lights
- C. External Alarms Energized
- D. Audible Alarm
- E. Hot-Standby & Space Diversity.

 The "B" Fault and "A" Inservice

 Lamps on the SW/O Control Units

 (J1-J2) Lit

5. "A" RF POWER ALARM

- A. "A" AFC Meter Pulses
- B. Patch Panel Equip Alarm Lights
- C. External Alarms Energized
- D. Audible Alarm
- E. Hot-Standby & Space Diversity.
 The "A" Fault & "B" Inservice
 Lamps on the SW/O Control Units
 (J1-12) Lit

RCG

BR II/84

RCG

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

6. "B" RF POWER ALARM

A,	"B" AFC Meter Pulses	RCG
B.	Patch Panel Equip Alarm Lights	RCG

C. External Alarms Energized RCG

D. Audible Alarm

E. Hot-Standby & Space Diversity.

The "B" Fault & "A" Inservice

Lamps on the SW/O Control Units

(J1-J2) Lit

RCG

DATE 22 OCTOBER 1963

TESTER SUPERVISOR OUALITY ASSURANCE SUPERVISOR OUALITY ASSURANCE

BR II/84 Rev.

FEDERAL ELECTRIC CORPORATION BR II/84 Rev.

BIG RALLY II PROJECT

DATA SHEET

1		912111011
nsmi	ssion Path: From Station TKR	to Station TIZ
	REQUIREMENT	INITIAL IF OK
"A"	AC POWER FAILURE	
A.	Patch Panel Equip Alarm Lights	<u> (m</u>
B.	External Alarms Energized	<u>J.m.</u>
.C.	"A" Diversity Path Alarm Light	<u>1m</u>
D.	"A" Power Supply Alarm Lamp Lights (where applicable)	-J.m_
E.	Audible Alarm	<u>1-m</u>
F.	Hot-Standby & Space Diversity. The "A" Fault and "B" Inservice Lamps on the SW/O Control Units Lit	f_m_
"B"	AC POWER FAILURE	
A.	Patch Panel Equip Alarm Lights	<u>Jm</u>
В.	External Alarms Energized	_f_m_
C.	"B" Diversity Alarms Energized	_fm_
D.	"B" Power Supply Alarm Lamp Lights (where applicable)	-Jn
E.	Audible Alarm	1m
F.	Hot-Standby & Space Diversity. The "B" Fault & "A" Inservice Lamps on the SW/O Control Units Lit	J-m_

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

3. "A" MODULATION ALARM

- A. "A" AFC Pilot Sensor Alarm
- B. Patch Panel Equip Alarm Lights
- C. External Alarms Energized
- D. Audible Alarm
- E. Hot-Standby & Space Diversity.
 The "A" Fault & "B" Inservice
 Lamps on the SW/O Control Units
 (J1-J2) Lit

4. "B" MODULATION ALARM

- A. "B" AFC Pilot Sensor Alarm Lamp Lights
- B. Patch Panel Equip Alarm Lights
- C. External Alarms Energized
- D. Audible Alarm
- E. Hot-Standby & Space Diversity.
 The "B" Fault and "A" Inservice
 Lamps on the SW/O Control Units
 (J1-J2) Lit

5. "A" RF POWER ALARM

- A. "A" AFC Meter Pulses
- B. Patch Panel Equip Alarm Lights
- C. External Alarms Energized
- D. Audible Alarm
- E. Hot-Standby & Space Diversity.
 'The "A" Fault & "B" Inservice
 Lamps on the SW/O Control Units
 (J1-12) Lit

Jm Jm

Jm

Jm Jm

Jon

Jan Jan Jan

· Jan

4-122

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

BR II/84 Rev.

- 6. "B" RF POWER ALARM
 - A. "B" AFC Meter Pulses
 - B. Patch Panel Equip Alarm Lights
 - C. External Alarms Energized
 - D. Audible Alarm
 - E. Hot-Standby & Space Diversity.
 The "B" Fault & "A" Inservice
 Lamps on the SW/O Control Units
 (J1-J2) Lit

J.m. J.m.

Jm

TESTER 1963

TESTER SUPERVISOR QUALITY ASSURANCE, Malhouse GEEIA VERIFIED 11/12/63

BR II/84 Rev.

BIG RALLY II PROJECT

DATA SHEET

ansmission Path: From Station TIZ	to Station		
		TKR	70.70
REQUIREMENT	INI	rial if ok	4, 4
"A" AC POWER FAILURE			
A. Patch Panel Equip Alarm Lights		_Tr_	
B. External Alarms Energized		JL .	1
.C. "A" Diversity Path Alarm Light		JL	
D. "A" Power Supply Alarm Lamp Lights (where applicable)	-	JL	
E. Audible Alarm		J.	
F. Hot-Standby & Space Diversity. The "A" Fault and "B" Inservice Lamps on the SW/O Control Units Lit		TL	
"B" AC POWER FAILURE			
A. Patch Panel Equip Alarm Lights		JL	
B. External Alarms Energized		<u>,II.</u>	1,720
C. "B" Diversity Alarms Energized		JL	
D. "B" Power Supply Alarm Lamp Lights (where applicable)		JL	
E. Audible Alarm		JL	
F. Hot-Standby & Space Diversity. The "B" Fault & "A" Inservice			
Lamps on the SW/O Control Units Lit		JI.	

BIG RALLY II PROJECT

DATA SHEET

BR	11/84	Kev.
		Shirt of head

3.	A	MODULATION ALARM	
	A.	"A" AFC Pilot Sensor Alarm	JI.
	B.	Patch Panel Equip Alarm Lights	Д.
	C.	External Alarms Energized	Л.
	D.	Audible Alarm	л
	E.	Hot-Standby & Space Diversity. The "A" Fault & "B" Inservice Lamps on the SW/O Control Units (J1-J2) Lit	_л
4.	"B"	MODULATION ALARM	
	A.	"B" AFC Pilot Sensor Alarm Lamp Lights	JL
	B.	Patch Panel Equip Alarm Lights	<u>JL</u>
	C.	External Alarms Energized	π,
	D.	Audible Alarm	п.
	E.	Hot-Standby & Space Diversity. The "B" Fault and "A" Inservice Lamps on the SW/O Control Units (J1-J2) Lit	JL
5.	"A"	RF POWER ALARM	
	A. ·	"A" AFC Meter Pulses	JL.
	В.	Patch Panel Equip Alarm Lights	
	C.	External Alarms Energized	
	D.	Audible Alarm	JL
	E.	Hot-Standby & Space Diversity. 'The "A" Fault & "B" Inservice Lamps on the SW/O Control Units (J1-72) Lit	JL.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS STATION TESTS

BR II/84 Rev.

6.	"B"	RF	POWER	ALARM

- A. "B" AFC Meter Pulses
- B. Patch Panel Equip Alarm Lights
- C. External Alarms Energized
- D. Audible Alarm
- E. Hot-Standby & Space Diversity.
 The "B" Fault & "A" Inservice
 Lamps on the SW/O Control Units
 (J1-J2) Lit

_	- Waren	
•	几	
	JL	
8	JL	
	1 4 4 4	

JL

Л.

DATE 10 NOVEMBER, 1963
TESTER and fon shar
SUPERVISOR Paul farosal
QUALITY ASSURANCE () Milleu notes

GEELA

BR II/85 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS LINK TEST

						STATIC	N GP	<u>A</u>
Tra	ansm	ission Path:	From Station_	GIM	to	Station	(GPA
1.	DIV	VERSITY TESTS (A	ALL CONFIGURATI	ONS)		EXPEC	TED	ACTUAL
	A.	Pilot Level at A Control Panel	. IN terminals of		-47	to -53	db	-51.4 db
	В.	Pilot Level at B Control Panel	IN terminals of		-47	to -53	db	-52.4 db
	C.		IG OUT terminals ith SERVICE SWIT osition.		-50	事 _ 0. 25	db	-50.0 db
	D.		IG OUT terminals ith SERVICE SWIT cosition.		- 50	± 0.25	db	_50.1 db
	E.		Level change at SIC trol panel with "A"		<u>+</u> 1.	0 db		2 db
	F.		Level change at SIGNATION Panel with "B		+ 1.	0 db		2 db
	G.	distant transmitt	IG OUT terminals er TX B on the ai and Hot-Standby		-50	± 0.5		-
2.	BA	SEBAND					"A"	"B"
	A.	Level, 100 Kc F	RX		-34	+ 0.5	db -33,	9 -33.7 db
			(GEAX (GA-GPA	ONLY)	-40	± 0.5 d	lb	

BR II/85 Rev.

BIG BALLY II PROJECT

DATA SHEET

MW-503A LOS LINK TEST

		EV	PECTED	ACTUAL
B.	Frequency	EA	"A"	B"
	12 Ke	(GA-GPA Link Only)		3-5
		(dir dirir zinik only)		3 -N/Al db
	60 Ke		-34,0	94-34-1 db
	100 Ke		- 34	4-33.7 db
	200 Ke		From _33	₹-33.4 db
		100 Kc Level	Reference	
	350 Kc	Licter	- 34.	-33.7 db
	400 Ke			3 -33.5 db
	500 Ke			4 -34.0 db
OR	DER WIRE			
	Level, 1 Kc RX	-25 + 1	dbm	-25 dbm
B.				
	0.5 Ke			-26 dbm
	1 Ke			-24.9 dbm
	1.5 Ke	-2 db +	1 db	
		From 1		
		Referen	ce Level	-25 dbm
	2 Ke			_25 dbm
	2.5 Ke			~25.1dbm
	3 Ke			-25.2 dbm
	20 Ke	At least 12 db below Refer	ence	_49 dbm
INI	ERMODULATION DISTORT	PION		
. A.	One MW-503A Link	Minimum	n Ratio	
		45		46 db
RE	CEIVED SIGNAL POWER			
A.	Receiver A			+26.3dbm
B.	Receiver B			+26.3 dbm
		Sheet 2 of 4		
		photo 2 of 4	4-1	128

BRII/85

SITE GPA(GIM)
REF: DD/250 Item #17

6 Feb., 1964

-34.3db

2. BASEBAND FREQUENCY RESPONSE.

A. Level, 100KC RX (RX 'A' on at GIM). - -34db

B. Frequency 200KC -34.2db

350KC -34.0db

400KC

MC:mc

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS LINK TEST

			STATION	GPA	<i>N</i> *
Transmission Path:	From Station_	GIM	to Station	GPA	
6. NET PATH LOSS					
A. NPL, Path A				-55.0 db	
B. NPL, Path E				-55.0 db	

Discussion The Net Path Loss (NPL) in this procedure, consists of both fixed and variable losses and fixed gains. fixed losses are transmission line losses; that is, inherent waveguide attenuation and connector discontinuites. The variable loss is the actual transmission path loss. although relatively constant, it is effected by seasonal changes. It should be noted, however, that short term variations, much greater than the mean, will be experienced during abnormal atmospheric conditions. The fixed gains are the sum of the gains of transmitting and receiving antennas. Since the NPL is relatively constant, except as noted, it can be used as a future guide to antenna orientation and transmission line condition.

BR II/85 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS LINK TEST

			STATION	GIA V.	
Transmission Path:	From Station_	GIM	to Station	GPA	
			EXPECTED	ACTUA	I
7. SIGNAL-TO-NOISE I	RATIO				
A. Receiver A		to FIG. 9		76.5 db)
B. Receiver B	-	rocedure for ed results.		76 db	1

DATE 13 November 1963

TESTER Vincent & Diinn

SUPERVISOR P. Sweeney

QUALITY ASSURANCE M. Conf.

BR II/85 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS LINK TEST

						STATION	GPA		
Tra	nsm	ission Path:	From Station	GTA	to	Station	GPA		
1.	DIV	ERSITY TESTS (ALL CONFIGURA	TIONS)		EXPECTE	0	ACT	UAL
	A.	Pilot Level at A Control Panel	IN terminals of		-47	to -53 db		- 52	_db
	В.	Pilot Level at I Control Panel	3 IN terminals of		-47	to -53 db		-52.8	_db
	C.		GIG OUT terminal ith SERVICE SWI		-50	事 0.25 db		-5 0	_db
	D.		IG OUT terminal ith SERVICE SWI		-50	+ 0.25 db		~ 50	_db
	E.		Level change at atrol panel with		+ 1.	0 db		 3	_db
	F.		Level change at ntrol Panel with		+1.	0 db		3	_db
	G.	distant transmit	IG OUT terminal ter TX B on the and Hot-Standby	air	-50	+ 0.5 db		-50,1	_db
2.	BAS	SEBAND					A	В	
	A.	Level, 100 Kc	RX ·		-34	+ 0.5 db	-34	-34	_db
			(GP	A ONLY)	-40	+ 0.5 db			

BR II/85 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS LINK TEST

			EXPECTED	ACTUAL
B.	Frequency			A B
1	12 Ke	(GA-GPA Link On	ly)	NA NA db
	60 Ke			-34.4 -34.9b
	100 Ke			-3434 db me
	200 Ke		_0.5 db From	-33.8 -33.9db
			100 Kc Referen Level	ce
	350 Kc		240,402	-33.9 -33.9db
	400 Kc			-33.9 -33.9db
	500 Kc			-33.933.9db
OPI	DER WIRE			
A.	Level, 1 Kc RX		-25 ⁺ 1 dbm	_25 dbm
B.	Frequency Response		-20 _ 1 0000	ubiii
D.	0.5 Kc			-25.8 dbm
	1 Ke			
			9 31 1 1 11	~25 dbm
	1.5 Ke		-2 db + 1 db From 1 Kc	
			Reference Level	-24.9 dbm
	2 Ke			-24.6 dbm
	2.5 Ke			-24.4 dbm
	3 Ke			-24.3 dbm
	20 Ke	At least 12 db belo	ow Reference	-50 dbm
INT	ERMODULATION DISTORT	ION		
A.	One MW-503A Link		Minimum Ratio	A B
			45 db 4	7 18db 18 db
RE	CEIVED SIGNAL POWER			
A.	Receiver A			-32.2dbm
В.	Receiver B			-32.2dbm
		Sheet 2 of 4		4-132
		Direct 4 Of 4		7-132

BR II/85

Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS LINK TEST

				STATION_	GPA	
Ąra	ansmission Path:	From Station_	GTA	to Station	?GPA	
6.	NET PATH LOSS					
	A. NPL, Path A				61.3 db	
	B. NPL, Path B				61.3_db	

Discussion The Net Path Loss (NPL) in this procedure. consists of both fixed and variable losses and fixed gains. fixed losses are transmission line losses; that is, inherent waveguide attenuation and connector discontinuites. The variable loss is the actual transmission path loss, although relatively constant, it is effected by seasonal It should be noted, however, that short term variations, much greater than the mean, will be experienced during abnormal atmospheric conditions. The fixed gains are the sum of the gains of transmitting and receiving antennas. Since the NPL is relatively constant, except as noted, it can be used as a future guide to antenna orientation and transmission line condition.

FEDERAL ELECTRIC CORPORATION BR II/85 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS LINK TEST

							STATION	GPA		-
Tra	ınsm	ission Path:	From	Station_	GTA	to	Station	GPA		1
							EXPECTE	ED	ACT	'UAL
7.	SIG	NAL-TO-NOISI	E RATIO							
	A.	Receiver A			r to FIG.				75.5	_db
	B.	Receiver B		-	ted resul				80.0	_db

DATE 15 November 1963
TESTER () Schen las
SUPERVISOR / Jureney
QUALITY ASSURANCE M.C.
GEEIA Per RAMPAGE

BR II/85 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS LINK TEST

				STATION GIM		
Transmission Path:			From Station GIM	to Station GPA		
1.	DIV	ERSITY TESTS	(ALL CONFIGURATIONS)	EXPECTED	ACTUAL	
	Α.	Pilot Level at Control Panel	A IN terminals of	-47 to -53 db	-51.8 db	
	В.	Pilot Level at Control Panel	B IN terminals of	-47 to -53 db	=52.6 db	
	C.		SIG OUT terminals of with SERVICE SWITCH position.	-50 - 0.25 db	=50db	
	D.		SIG OUT terminals of with SERVICE SWITCH position.	-50 ⁺ 0.25 db	<u>-50</u> db	
	E.		t Level change at SIG OUT ontrol panel with "A"	+ 1.0 db	5 db	
	F.		t Level change at SIG OUT control Panel with "B"	+ 1.0 db	db	
	G.	distant transm	SIG OUT terminals with itter TX B on the air ty and Hot-Standby only).	-50 ± 0.5 db	_50 db	
2.	BAS	SEBAND			2	
	·A.	Level, 100 Kc	RX	-34 + 0.5 db	-34 db	
			(GPA ONLY)	-40 ⁺ 0.5 db		

BR II/85 Rev.

BIG BALLY II PROJECT

DATA SHEET

MW-503A LOS LINK TEST

	***		EXPECTED	ACTUAL
B.	Frequency			
	12 Kc	(GA-GPA Link On	dy)	db
	60 Kc			*34 1db
	100 Kc			34.0cb
	200 Ke		_0.5 db From	-34 4 db
			100 Kc Reference	
	350 Ke		Ticaci	3.6 * -34.7 db
	400 Kc			* -34.7 db
	500 Kc			* =34.9 db
		* Out of spec		
ORI	DER WIRE			
A.	Level, 1 Kc RX		-25 ± 1 dbm	<u>-25</u> dbm
В.	Frequency Response			
	0.5 Kc			_26 dbm
	1 Ke			_25 dbm
	1.5 Ke		-2 db + 1 db	
			From 1 Kc Reference Level	-24_5 dbm
	2 Ke		10101010100	_24.5 dbm
	2. 5 Kc			-26 dbm
	3 Kc			-24.5 dbm
	20 Kc	At least 12 db bel	low Reference	41 dbm
INT	ERMODULATION DISTOR	TION		
.A.	One MW-503A Link		Minimum Ratio	
			45 db	48 db
RE	CEIVED SIGNAL POWER			
A.	Receiver A	13, *		_25 dbm
В.	Receiver B			-15 dbm
		0.00		
		Sheet 2 of 4		4-136

3.

5.

BR II/85 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS LINK TEST

SITE G I M

		EXPECTED	ACTUAL
B.	Frequency		
1	12 Ke	(GA-GPA Link Only)	db
	60 Kc		34.3 db
	100 Ke	5 개요. : 10 및 12 및 12 및 12 및 13 및 13 및 13 및 13 및 13	34.0 db
	200 Kc		33.6 db
	350 Ke		33.6 db
	400 Kc		33.5 db
	500 Kc		33.5 db
ori	DER WIRE		
A.	Level, 1 Kc RX	-25 + 1 dbm	dbm
В.	Frequency Response		
	0.5 Kc		dbm
	1 Kc		dbm
	1.5 Ke	-2 db + 1 db From 1 Kc	dhm
		Reference Level	dbm
	2 Kc	. 하님, 이 . 하는데 보고 보고 있네요? 오늘	dbm
	2.5 Kc		dbm
	3 Ke		dbm
	20 Ke	At least 12 db below Reference	dbm
. INT	ERMODULATION DISTORT	TION	
A.	One MW-503A Link	Minimum Ratio 45 db	db
. RE	CEIVED SIGNAL POWER	num	
j A.	Receiver A	DATE 3 Feb 64	dbm
В.	Receiver B	TESTER/ALX AMALY	dbm
		Sheet 2 of 4 ISEI Q.A. 4-1	36A

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS LINK TEST

					STATION_	GIM
Transmission Path:			Path:	From Station GIM	to Station GPA	
6.	NE'	r PAT	H LOSS			1
	A.	NPL,	Path A			59.2 db Rcvr''A"
	B.	NPL,	Path B			.61.8 db Rcvr"B"

C. Discussion - The Net Path Loss (NPL) in this procedure, consists of both fixed and variable losses and fixed gains. The fixed losses are transmission line losses; that is, inherent waveguide attenuation and connector discontinuites. The variable loss is the actual transmission path loss, although relatively constant, it is effected by seasonal changes. It should be noted, however, that short term variations, much greater than the mean, will be experienced during abnormal atmospheric conditions. The fixed gains are the sum of the gains of transmitting and receiving antennas. Since the NPL is relatively constant, except as noted, it can be used as a future guide to antenna orientation and transmission line condition.

BR II/85 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS LINK TEST

		STATIO	N GIM	
Transmission Path:	From Station GIM	to Station_	GPA	
		EXPEC	red	ACTUAL
7. SIGNAL-TO-NOIS	E RATIO			/ 7
A. Receiver A.	(Refer to FIG			44 db
B. Receiver B	expected resu	The state of the s		63 65 dh

TESTER MC- X MM
SUPERVISOR RODE

QUALITY ASSURANCE | Formula |

GEEIA Rolphy | Manger

BR II/85 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS LINK TEST

-			STAT	ION GA	1
Transmission Path:		From Station	to Station	GPA.	
IT			EXPE	CTED	ACTUAL
7. SIG	NAL-TO-NOISE 1	RATIO			,
A.	Receiver A		to FIG. 9 of occdure for the	1	63 db
B.	Receiver B		ed results.)		63 db

TESTER
SUPERVISOR

QUALITY ASSURANCE!

GEEIA Church Control

GFCS TSCT Burge & Kang

BR II/85 Rev.

BIG RALLY II PROJECT

DATA SHEET

1				STATI	ON GTA	1	
Tra	ansm	ission Path: From Station G T A	to	Station	GPA		
1.	DIV	VERSITY TESTS (ALL CONFIGURATIONS)		EXPE	CTED	ACT	TUAL
	A.	Pilot Level at A IN terminals of Control Panel	-47	to -53	db	- 52.	5 db
	В.	Pilot Level at B IN terminals of Control Panel	-47	to -53	db	-52	db
	c.	Pilot Level at SIG OUT terminals of Control Panel with SERVICE SWITCH in A-DISABLE position.	-50	事 _ 0.25	db	_50_	_db
	D.	Pilot Level at SIG OUT terminals of Control Panel with SERVICE SWITCH in B-DISABLE position.	- 50	+ _ 0. 25	db	_50	_db
	E.	Stabilized Pilot Level change at SIG OUT terminals of control panel with "A" power off.	+ 1.	0 db	.5db chan	50_! ge	5_db
	F.	Stabilized Pilot Level change at SIG OUT terminals of Control Panel with "B" power off.	+ 1.	0 db	.25db cha	50 . ;	25db
	G.	Pilot Level at SIG OUT terminals with distant transmitter TX B on the air (Space Diversity and Hot-Standby configurations only).	-50	± 0.5	db	-50.2	25db
2.	BAS	SEBAND					
	A.	Level, 100 Kc RX	-34	+ 0.5	db	-34	_db
3, 17		(GPA ONLY)	-40	± 0.5	db 🚜		

BR II/85 Rev.

BIG BALLY II PROJECT

DATA SHEET

MW-503A LOS LINK TEST

B. Frequency	EXPECTED	ACTUAL
12 Kc	(GA-GPA Link Only)	N/A XXXXXX db
60 Kc	(dia dia mini diay)	
100 Kc		-34.4 db
200 Ke		-31, db
	100 Kc Reference Level	<u>-33.93</u> us
350 Kc		-33.9 db
400 Kc		-33.9 db
500 Kc		-34 db
ORDER WIRE		
A. Level, 1 Kc RX	-25 + 1 dbm	_25_dbm
B. Frequency Response		
0.5 Kc		_25_dbm
1 Kc		-25 dbm
1.5 Kc	-2 db + 1 db From 1 Kc Reference Level	_25 dbm
2 Kc		_25 dbm
2.5 Ke		-2/1.9 dbm
3 Ke		_25 dbm
20 Kc	At least 12 db below Reference	_71 dbm
INTERMODULATION DISTOR	RTION	
A. One MW-503A Link	Minimum Ratio 45 db	* 38 db
RECEIVED SIGNAL POWER	* Out of spec.	
A. Receiver A		-33.2 dbm
B. Receiver B		_33.2 dbm
	Sheet 2 of 4	1-140

3.

5.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS LINK TEST

		STATION GTA	
Transmission Path:	From Station GTA	to Station GPA	¥
6. NET PATH LOSS			-
A. NPL, Path A		61.2. dl	b
B. NPL, Path B		dl	b

Discussion The Net Path Loss (NPL) in this procedure, consists of both fixed and variable losses and fixed gains. fixed losses are transmission line losses; that is, inherent waveguide attenuation and connector discontinuites. The variable loss is the actual transmission path loss, although relatively constant, it is effected by seasonal changes. It should be noted, however, that short term variations, much greater than the mean, will be experienced during abnormal atmospheric conditions. The fixed gains are the sum of the gains of transmitting and receiving antennas. Since the NPL is relatively constant, except as noted, it can be used as a future guide to antenna orientation and transmission line condition.

BR II/85 Rev.

BIG RALLY II PROJECT

DATA SHEET

				ST	ATION GTA		
Tra	nsm	ission Path:	From Station G	TA to State	ion GPA		
			14	EX	PECTED	AC	LAU
7.	SIG	NAL-TO-NOISE RA	TIO				
	A.	Receiver A		co FIG. 9 of cedure for the		76	_db
	B.	Receiver B	expected	results.)		76	_db

DATE 14 November 1963
TESTER My Dray
SUPERVISOR & BRUETT
QUALITY ASSURANCE Bonche/
GEEIA Ralph & Luger

BR II/85 Rev.

BIG RALLY II PROJECT

DATA SHEET

				STATION	GHO	
Tra	nsmission Path: From St	ationGAG	to	Station G	НО	
1.	DIVERSITY TESTS (ALL CONFIG	TURATIONS)		EXPECTED	ACT	UAL
	A. Pilot Level at A IN terminal Control Panel		47	to -53 db	-51.3	db
	B. Pilot Level at B IN terminal Control Panel		47	to -53 db	-52.2	_db
	C. Pilot Level at SIG OUT term Control Panel with SERVICE in A-DISABLE position.		50	事 - 0. 25 db	-50	_db
	D. Pilot Level at SIG OUT term Control Panel with SERVICE in B-DISABLE position.		50	† 0.25 db	-50	_db
	E. Stabilized Pilot Level change terminals of control panel w power off.	at SIG OUT	1.	0 db	2	_db
	F. Stabilized Pilot Level change terminals of Control Panel v power off.		1.	0 db	2	_db
	G. Pilot Level at SIG OUT term distant transmitter TX B on (Space Diversity and Hot-State configurations only).	the air	50	± 0.5 db	-49.9	_db
2.	BASEBAND					
	A. Level, 100 Kc RX			+ 0.5 db	-34	db
		(GPA ONLY) -4	40	+ 0.5 db		

BR II/85 Rev.

BIG BALLY II PROJECT

DATA SHEET

		EXPECTED	ACTUAL
	B. Frequency		
	12 Ke	(GA-GPA Link Only)	N/A db
	60 Kc		-34.3 db
	100 Ke		-34 db
	200 Ke	_0.5 db From 100 Kc Reference Level	-33.7 db
	350 Kc		-33.8 db
	400 Kc		-33.7 db
	500 Ke		-33.8 db
3.	ORDER WIRE		
	A. Level, 1 Kc RX	-25 ⁺ 1 dbm	_25_dbm
	B. Frequency Response		
	0.5 Ke		-24.7 dbm
	1 Ke		-25 dbm
	1.5 Kc	-2 db + 1 db	
		From 1 Kc Reference Level	-25.2 dbm
	2 Kc		-25.2 dbm
	2.5 Ke		-25.1 dbm
	3 Ke		-25.2 dbm
	20 Ke	At least 12 db below Reference	-144 dbm
4.	INTERMODULATION DISTORT	CION	
	A. One MW-503A Link	Minimum Ratio 45 db	48 db
5.	RECEIVED SIGNAL POWER		
	A. Receiver A		37.5 dbm
	B. Receiver B		37.5 dbm
		Sheet 2 of 4	4-144

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS LINK TEST

And the second				STATION	GHO	
Tra	ansmission Path:	From Station_	GAG	to Station	GHO	
6.	NET PATH LOSS					
	A. NPL, Path A			•	66.6 db	
	B. NPL, Path B				(.66.6-db	

Discussion The Net Path Loss (NPL) in this procedure, consists of both fixed and variable losses and fixed gains. fixed losses are transmission line losses; that is, inherent waveguide attenuation and connector discontinuites. The variable loss is the actual transmission path loss. although relatively constant, it is effected by seasonal It should be noted, however, that short term variations, much greater than the mean, will be experienced during abnormal atmospheric conditions. The fixed gains are the sum of the gains of transmitting and receiving antennas. Since the NPL is relatively constant, except as noted, it can be used as a future guide to antenna orientation and transmission line condition.

BR II/85 Rev.

BIG RALLY II PROJECT

DATA SHEET

							STATION	GHO			
Tra	nsm	ission Path:	From	Station_	GAG	_ to	Station	GHO			100
	,						EXPECT	ED	ACT	TAU	4
7.	SIG	NAL-TO-NOISE	RATIO								
	A.	Receiver A			r to FIG.		he		76	_db	
	B.	Receiver B		exped	ted result	ts.)			76	db	

\mathtt{DATE}_{\perp}	9 January 1964
TESTE	R Mu & Lian
SUPER	VISOR Comalle
QUALI	TY ASSURANCE M. Unil
GEEIA	Ralph S. Kreener

BR II/85 Rev.

BIG RALLY II PROJECT

DATA SHEET

						STATION_	GHO
Tra	insm	ission Path:	From Station_	GPE	_ to	Station	GHO
1,	DIV	ERSITY TESTS (ALL	CONFIGURATIO	NS)		EXPECTED	ACTUAL
	A.	Pilot Level at A IN Control Panel	terminals of		-47	to -53 db	-51.7 db
	В.	Pilot Level at B IN Control Panel	terminals of		-47	to -53 db	-52.0 db
	C.	Pilot Level at SIG (Control Panel with a in A-DISABLE posit	SERVICE SWITCH		-50	- 0. 25 db	-50.0 db
	D.	Pilot Level at SIG (Control Panel with a in B-DISABLE posit	SERVICE SWITCH		-50	+ 0.25 db	-50.0 db
	E.	Stabilized Pilot Level terminals of control power off.	•		+ 1.	0 db	db
	F.	Stabilized Pilot Level terminals of Control power off.	0	OUT	+ 1.	0 db	db
	G.	Pilot Level at SIG (distant transmitter (Space Diversity and configurations only).	TX B on the air Hot-Standby	th	-50	± 0.5 db	_19_8_db
2.	BAS	SEBAND					
	A.	Level, 100 Kc RX			-34	+ 0.5 db	<u>-34.0 db</u>
			(GPA O	NLY)	-40	+ 0.5 db	

BR II/85 Rev.

BIG RALLY II PROJECT

DATA SHEET

B. Frequency	EXPECTE	D ACTUAL
12 Kc	(GA-GPA Link Only)	N/A db
60 Kc		-34.3 db
100 Ke		-34.0 db
200 Ke	_0.5 db From 100 Kc Referent Level	-33.8 db
350 Ke	TicAct	-33.9 db
400 Kc		-33.9 db
. 500 Ke		-34.2 db
ORDER WIRE		
A. Level, 1 Kc RX	-25 ⁺ 1 dbm	-25.0 dbm
B. Frequency Response		
0.5 Ke		-24.9 dbm
1 Ke		-25.0 dbm
1.5 Kc	-2 db + 1 db From 1 Kc Reference Leve	
2 Ke		-25.1 dbm
2.5 Ke		-25.2 dbm
3 Ke		-25.2 dbm
20 Kc	At least 12 db below Reference	-42 dbm
INTERMODULATION DISTORT	CION	
A. One MW-503A Link	Minimum Ratio	147.5 db
. RECEIVED SIGNAL POWER		
A. Receiver A		31.5 dbm
B. Receiver B		31.5 dbm
	Sheet 2 of 4	4-148

Rev.

FEDERAL ELECTRIC CORPORATION

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS LINK TEST

		STATION	GHO
Transmission Path:	From Station G	PE to Station	GHO
6. NET PATH LOSS			
A. NPL, Path A			60.4 db
B. NPL, Path B		6	N/A : db

Discussion C. The Net Path Loss (NPL) in this procedure, consists of both fixed and variable losses and fixed gains. fixed losses are transmission line losses; that is, inherent waveguide attenuation and connector discontinuites. The variable loss is the actual transmission path loss, although relatively constant, it is effected by seasonal It should be noted, however, that short term variations, much greater than the mean, will be experienced during abnormal atmospheric conditions. The fixed gains are the sum of the gains of transmitting and receiving antennas. Since the NPL is relatively constant, except as noted, it can be used as a future guide to antenna orientation and transmission line condition.

BR II/85 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS LINK TEST

			STAT	ION	НО
Tra	ansmission Path:	From Station_	GPE to Station	G	НО
			EXPE	CTED	ACTUAL
7.	SIGNAL-TO-NOISE	RATIO			
	A. Receiver A		to FIG. 9 of ocedure for the		
	B. Receiver B	expecte	ed results.)		.76 db

DATE 8-10 January, 1964

TESTER

SUPERVISOR (WMalle)

QUALITY ASSURANCE (M. Cara)

GEEIA Palale Manager

BIG RALLY II PROJECT

DATA SHEET

	4		STATION GAG
Tra	ansm	ission Path: From Station GAG	to Station GHO
1.	DIV	ERSITY TESTS (ALL CONFIGURATIONS)	EXPECTED ACTUAL
	A.	Pilot Level at A IN terminals of Control Panel	-47 to -53 db52 db
	B.	Pilot Level at B IN terminals of Control Panel	-47 to -53 db52,5db
	C.	Pilot Level at SIG OUT terminals of Control Panel with SERVICE SWITCH in A-DISABLE position.	-50 _ 0. 25 db50 db
i i	D.	Pilot Level at SIG OUT terminals of Control Panel with SERVICE SWITCH in B-DISABLE position.	-50 t 0.25 db50 db
	E.	Stabilized Pilot Level change at SIG OUT terminals of control panel with "A" power off.	+1.0 db +0.5 db
	F.	Stabilized Pilot Level change at SIG OUT terminals of Control Panel with "B" power off.	+1.0 db+0.5 db
	G.	Pilot Level at SIG OUT terminals with distant transmitter TX B on the air (Space Diversity and Hot-Standby configurations only).	-50 ± 0.5 db <u>-49.75</u> db
2.	BAS	SEBAND	
37	A.	Level, 100 Kc RX	-34 + 0.5 db34 db
		(GPA ONLY)	-40 ⁺ 0.5 db

BR II/85 Rev.

BIG BALLY II PROJECT

DATA SHEET

MW-503A LOS LINK TEST

	EXPECTED	ACTUAL
B. Frequency	EAPECIED	ACTUAL
12 Ke	(GA-GPA Link Only)	N/A db
60 Ke		-34.5 db
100 Ke		-34.0 db
200 Ke	0.5 db From 100 Kc Reference Level	-34.0 db
350 Kc		-34.0 db
400 Kc		-34.0 db
500 Ke		-34.0 db
ORDER WIRE		
A. Level, 1 Kc RX	-25 ⁺ 1 dbm	-25.0 dbm
B. Frequency Response		
0.5 Ke		-25.2 dbm
1 Ke		-25.0 dbm
1.5 Ke	-2 db + 1 db	
	From 1 Kc Reference Level	-24.6 dbm
2 Ke		-24.7 dbm
2.5 Ke		-24.7 dbm
3 Ke		-24.7 dbm
20 Ke	At least 12 db below Reference	<u>-48.0</u> dbm
INTERMODULATION DIST	ORTION	
A. One MW-503A Link	Minimum Ratio	
	45 db	_48db
RECEIVED SIGNAL POWE	R	
A. Receiver A		33.7 dbm
B. Receiver B		34.7 dbm

3.

BR II/85 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS LINK TEST

		STATION GAG			
Transmission Path:		From Station GAG	to Station GHO		
6.	NET PATH LOSS			*	
	A. NPL, Path A		62.4 db		
	B. NPL, Path B		84 midt	,50	

C. Discussion - The Net Path Loss (NPL) in this procedure, consists of both fixed and variable losses and fixed gains. The fixed losses are transmission line losses; that is, inherent waveguide attenuation and connector discontinuites. The variable loss is the actual transmission path loss, although relatively constant, it is effected by seasonal changes. It should be noted, however, that short term variations, much greater than the mean, will be experienced during abnormal atmospheric conditions. The fixed gains are the sum of the gains of transmitting and receiving antennas. Since the NPL is relatively constant, except as noted, it can be used as a future guide to antenna orientation and transmission line condition.

BR II/85 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS LINK TEST

				STATION	GAG
Tra	ansm	ission Path:	EXPECTED ACTUAL O-NOISE RATIO or A (Refer to FIG. 9 of		
	1			EXPECTE	D ACTUAL
7.	SIG	NAL-TO-NOISE I	RATIO		
	A,	Receiver A			db
	B.	Receiver B		 the state of the s	76 db

TESTER MAN TOWN SUPERVISOR Limited & Ficher GUALITY ASSURANCE William R. M. GEELA Rolph S. Kniger

FEDERAL ELECTRIC CORPORATION BR II/85

Rev.

BIG RALLY II PROJECT

DATA SHEET

	- 1 m			STATION	GPE	
Tra	nsm	ission Path: From Station GPE	to	Station	GHO	
1.	DIV	VERSITY TESTS (ALL CONFIGURATIONS)		EXPECTED		ACTUAL
	A.	Pilot Level at A IN terminals of Control Panel	-47	to -53 db		-52.6db
	В.	Pilot Level at B IN terminals of Control Panel	-47	to -53 db	_	-51.6db
	C.	Pilot Level at SIG OUT terminals of Control Panel with SERVICE SWITCH in A-DISABLE position.	-50	事 - 0.25 db	-	-50 db
	D.	Pilot Level at SIG OUT terminals of Control Panel with SERVICE SWITCH in B-DISABLE position.	-50	⁺ 0.25 db		-50. db
	E.	Stabilized Pilot Level change at SIG OUT terminals of control panel with "A" power off.	<u>+</u> 1.	0 db	=	50•4 db
	F.	Stabilized Pilot Level change at SIG OUT terminals of Control Panel with "B" power off.	+ 1.	0 db		·50 db
	G.	Pilot Level at SIG OUT terminals with distant transmitter TX B on the air (Space Diversity and Hot-Standby configurations only).	-50	± 0.5 db	_	_50 db
2.	BAS	SEBAND				. **
	A.	Level, 100 Kc RX	-34	+ 0.5 db	_	-34 db
		(GPA ONLY)	-40	+ 0.5 db		

FEDERAL ELECTRIC CORPORATION BR II/85 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS LINK TEST

4	EXPECTED	ACTUAL
B. Frequency		
12 Ke	(GA-GPA Link Only)	N/A db
60 Kc		-34 db
100 Kc		-34 db
200 Ke	_0.5 db From 100 Kc Reference Level	-33.6db
350 Kc		-34 db
400 Kc		-34 db
500 Ke		-34 db
ORDER WIRE		
A. Level, 1 Kc RX	-25 + 1 dbm	-25 dbm
B. Frequency Response		• •
0.5 Kc		-26 dbm
1 Ke		-25 dbm
1.5 Ke	-2 db + 1 db	64
	From 1 Kc Reference Level	Ol E dbm
2 Ke	Reference Level	24.5 dbm 24.5 dbm
2.5 Ke		24.5 dbm
3 Kc		24.5 dbm
	At least 19 db below Defenses	
20 Ke	At least 12 db below Reference	46.5 dbm
INTERMODULATION DISTOR	TION	
A. One MW-503A Link	Minimum Ratio 45 db	45.5 db
RECEIVED SIGNAL POWER		
A. Receiver A		32.2 dbm
B. Receiver B		32.2 dbm
	Chapt 2 of 1	

3.

BR II/85 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS LINK TEST

			STATION_	GPE	
Transmission Path:	From Station_	GPE	to Station	GHO	
6. NET PATH LOSS				•	
A. NPL, Path A				61.6. db	
B. NPL, Path B		• (8	•	61.6_db	

C. Discussion - The Net Path Loss (NPL) in this procedure, consists of both fixed and variable losses and fixed gains. The fixed losses are transmission line losses; that is, inherent waveguide attenuation and connector discontinuites. The variable loss is the actual transmission path loss, although relatively constant, it is effected by seasonal changes. It should be noted, however, that short term variations, much greater than the mean, will be experienced during abnormal atmospheric conditions. The fixed gains are the sum of the gains of transmitting and receiving antennas. Since the NPL is relatively constant, except as noted, it can be used as a future guide to antenna orientation and transmission line condition.

BR II/85 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS LINK TEST

					i	STATIC	ON	GPE		V.
Transmission Path:		From Station_		GPE	to St	ation	GHO)	
						EXPEC	TED		ACT	TAU
7. SIG	NAL-TO-NOISE	RATIO								
A.	Receiver A		(Refe	r to FIG.	9 of				76	_db
	Deseiven D		_	procedure		•			7/	
В.	Receiver B		exped	ted result	ts.)				76	db

TESTER John 64

TESTER John 64

SUPERVISOR Jung C Ille

QUALITY ASSURANCE William R. May

GEELA Rolph & Kringer

BR II/85 Rev.

BIG RALLY II PROJECT

DATA SHEET

						STATIO	n Ti	D .
Tra	ınsm:	ission Path: From	m Station_	TID	to	Station_	TIC	18
1.	DIV	ERSITY TESTS (ALL CO	NFIGURAT	IONS)		EXPEC	red	ACTUAL
	A.	Pilot Level at A IN terr Control Panel	ninals of		-47	to -53 c	lb	-51.º db
	B.	Pilot Level at B IN term Control Panel	ninals of		-47	to -53 d	lb	-51.6 db
	c.	Pilot Level at SIG OUT Control Panel with SERV in A-DISABLE position.			-50	事 _ 0.25 c	lb	-50 db
	D.	Pilot Level at SIG OUT Control Panel with SERV in B-DISABLE position.			-50 	⁺ 0.25 c	lb	-50 db
	E.	Stabilized Pilot Level cherminals of control pan power off.	_		+ 1.	0 db		-50.4 db
	F.	Stabilized Pilot Level cherminals of Control Parpower off.	9		+ 1.	0 db	*.	-50.3 db
	G.	Pilot Level at SIG OUT distant transmitter TX I (Space Diversity and Hoconfigurations only).	3 on the ai		-50	± 0.5 d	b	-50 db
2.	BAS	SEBAND	•					*
	A.	Level, 100 Kc RX			-34	+ 0.5 d	b	<u>2</u> -34 db
			(GPA	ONLY)	-40	± 0.5 d	b	

BR II/85 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS LINK TEST

1.				
B.	Frequency		EXPECTED	ACTUAL
ь.			\$	1.
	12 Ke	(GA-GPA Link On	ly)	NYA db
	60 Kc			-34.5 db
	100 Ke			311_db
	200 Ke		_0.5 db From	-33.5db
			100 Kc Reference Level	
	350 Kc		riever	-33.5 db
	400 Ke			-33.5 db
	500 Kc			-33.5 db
OR	DER WIRE			
A.	Level, 1 Kc RX		-25 ⁺ 1 dbm	-35 dbm
В.	Frequency Response			
	0.5 Kc			-25.7 dbm
	1 Kc .	The value of the		_25 dbm
	1.5 Ke		-2 db + 1 db	
			From 1 Ke	
			Reference Level	-24.8 dbm
	2 Kc			-21.7 dbm
	2.5 Kc			-24.7 dbm
	3 Ke			-24.7 dbm
	20 Kc	At least 12 db belo	ow Reference	-52 dbm
INT	ERMODULATION DIST	TORTION		
Α.	One MW-503A Link		Minimum Ratio	
			45 db	48 db
RE	CEIVED SIGNAL POW	ER		•
A.	Receiver A			-32.7 dbm
B.	Receiver B			-32.7 dbm
				ar a

3.

Sheet 2 of 4

4-160

BR II/85 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS LINK TEST

					STAT	ION T.I.D.	10
Transmission Path:			Path:	From Station	T.I.D, to Station	T.I.C.	
6.	NE'	r PATI	H LOSS				
	A.	NPL,	Path A			61 : db	
	B.	NPL,	Path B			N/A_db	

C. Discussion - The Net Path Loss (NPL) in this procedure, consists of both fixed and variable losses and fixed gains. The fixed losses are transmission line losses; that is, inherent waveguide attenuation and connector discontinuites. The variable loss is the actual transmission path loss, although relatively constant, it is effected by seasonal changes. It should be noted, however, that short term variations, much greater than the mean, will be experienced during abnormal atmospheric conditions. The fixed gains are the sum of the gains of transmitting and receiving antennas. Since the NPL is relatively constant, except as noted, it can be used as a future guide to antenna orientation and transmission line condition.

BR II/85 Rev.

BIG RALLY II PROJECT

DATA SHEET

				STA	TION TAI	.D.	
Transmi	ssion Path:	From St	ation T.I.D.	to Statio			
				EXP	ECTED	ACT	UAL
7. SIGI	NAL-TO-NOISE RA	ATIO	•				
A.	Receiver A		(Refer to FIG. this procedure			76 76	_db
В.	Receiver B	expected results.)					_db
							1
			•				
							. 2
							N.
							13
			DATE	29, No	ov. 1963		
			TESTER_	JUIT	21	19-1	7
			SUPERVI	SOR (cone	426	arle	1
		•	QUALITY	ASSURAN	CE-plrick	Phun	1
			GEEIA	Calphil.	Buger	- ·········	_
1.0			AFCS				

BR II/85 Rev.

BIG RALLY II PROJECT

DATA SHEET

			*	STATION	TIC.	
Tr	ansm	ission Path: From State	ion TIC. to	Station_	TID	
1.	DIV	ERSITY TESTS (ALL CONFIGU	(ALL CONFIGURATIONS)			ACTUAL
	A.	Pilot Level at A IN terminals Control Panel		' to -53 d	b	-52.5 db
	В.	Pilot Level at B IN terminals Control Panel		' to -53 d	b ·	-52,5db
	C.	Pilot Level at SIG OUT termin Control Panel with SERVICE S in A-DISABLE position.		_ 0.25 d	b .	-50.0 db
	D.	Pilot Level at SIG OUT terming Control Panel with SERVICE Sin B-DISABLE position.	als of WITCH -50	_ 0.25 d	b -	50.0 db
	E,	Stabilized Pilot Level change a terminals of control panel with power off.		.0 db		-0.5 db
	F.	Stabilized Pilot Level change a terminals of Control Panel wit power off.		.0 db		-0.4 db
	G.	Pilot Level at SIG OUT termindistant transmitter TX B on the (Space Diversity and Hot-Stand configurations only).	e air	± 0.5 di	. .	-50.0db
2.	BAS	SEBAND				
	A.	Level, 100 Kc RX	-34	+ 0.5 di	. :	-34.0 db
		(0	GPA ONLY) -40	+ 0.5 dk)	

BR II/85 Rev.

BIG RALLY II PROJECT

DATA SHEET

					EXPECTED	ACTUAL
В.	Frequency					
	12 Kc		(GA-GPA I	ink Onl	у) .	N/A db
	60 Kc					-34.2 db
	100 Kc					-34-,0 db
	200 Ke				10.5 db From 100 Kc Reference Level	- <u>33.7</u> db
	350 Ke			,		-33,8 db
	400 Kc					-33.8 db
	500 Kc					34.0 db
ORI	DER WIRE					
A.	Level, 1 Kc	RX			-25 ⁺ 1 dbm	-25.0 dbm
B.	Frequency R	esponse				
	0.5 Ke					-25.1 dbm
	1 Ke					-25.0 dbm
	1.5 Ke				-2 db + 1 db	
	in in				From 1 Kc	211
					Reference Level	
	2 Kc					-24.5 dbm
	2.5 Kc					-24.5 dbm
	3 Kc					-24.5 dbm
	20 Kc		At least 12	db belo	w Reference	~244.0 dbm
INT	ERMODULAT	ON DISTORTI	ON			AT TIO
A.	One MW-503	A Link			Minimum Ratio 45 db	'A"TX "B"TX" 45.5 47.0b
RF.	CEIVED SIGNA	AL POWER			10 43	75.3 7/40
	Receiver A					and I show
A.						-34.4. dbm
В.	Receiver B					-34.6 dbm
			Sheet 2 of	4		4-164

BR II/85 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS LINK TEST

			STATION_	TIC		
Transm	nission Path:	From Station TIC.	_ to Station TI	LID		
6. NE	T PATH LOSS					
Α.	NPL, Path A			64.5 db		
B.	NPL, Path E			64.5 db		

C. Discussion - The Net Path Loss (NPL) in this procedure, consists of both fixed and variable losses and fixed gains. The fixed losses are transmission line losses; that is, inherent waveguide attenuation and connector discontinuites. The variable loss is the actual transmission path loss, although relatively constant, it is effected by seasonal changes. It should be noted, however, that short term variations, much greater than the mean, will be experienced during abnormal atmospheric conditions. The fixed gains are the sum of the gains of transmitting and receiving antennas. Since the NPL is relatively constant, except as noted, it can be used as a future guide to antenna orientation and transmission line condition.

BR II/85 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS LINK TEST

				STA	TION TI	~ ~
Transm	ission Path:	From	Station TIC	to Station	TID	
				EXP	ECTED	ACTUAL
7. SIG	NAL-TO-NOISE R	ATIO				
A.	Receiver A		(Refer to FIG. this procedure			73.0db
B.	Receiver B		expected result			73.5 db

TESTER 1963
TESTER COM
SUPERVISOR COM
QUALITY ASSURANCE A Company Com
GEELA Dendell Molon

BR II/85 Rev.

BIG RALLY II PROJECT

DATA SHEET

						STATION_	TKG
Tra	insm	ission Path:	From Station_	TKG	_ to	Station	TAL
1.	DIV	ERSITY TESTS (ALL CONFIGURAT	IONS)		EXPECTED	ACTUAL
	A.	Pilot Level at A Control Panel	A IN terminals of		-47	to -53 db	-52.8 db
	В.	Pilot Level at I Control Panel	3 IN terminals of		-47	to -53 db	-52.1 db
	C.	The second secon	SIG OUT terminals with SERVICE SWIT consistion.		-50	- 0. 25 db	-50.0 db
	D.		SIG OUT terminals with SERVICE SWIT consition.		-50	+ 0.25 db	_50.0 db
	E.		Level change at SIGHT TO Panel with "A		+ 1.	0 db	-0.7 db
	F.		Level change at SIGNATION Panel with "B		+ 1.	0 db	-0.2 db
	G.	distant transmit	SIG OUT terminals ter TX B on the air and Hot-Standby		-50	± 0.5 db	-50.2 db
2.	BAS	SEBAND					
	A.	Level, 100 Kc	RX		-34	+ 0.5 db	-34.1 db
			(GPA	ONLY)	-40	+ 0.5 db	250

BR II/85 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS LINK TEST

I	3.	Frequency				EXPECTE	D	ACTUAL
		12 Kc		(GA-GPA	Link Onl	ly)		N/A db
		60 Kc						-34.3db
		100 Ke						-34.ldb
		200 Ke				100 Kc Refere	nce	-33.9db
		350 Kc					0 7	-34.1db
		400 Kc						-34.0db
		500 Kc						-34.1db
	ORE	ER WIRE						
1	A.	Level, 1 Kc	RX			-25 + 1 dbm		-25.0dbm
I	3.	Frequency R	esponse					<u> </u>
		0.5 Kc						-26.0dbm
		1 Kc						-25.0dbm
		1.5 Kc				-2 db + 1 db	• .	
						From 1 Kc Reference Lev	el	-24.8dbm
		2 Kc				1,0101010100		-24.8dbm
		2.5 Kc					•	-24.7dbm
		3 Кс		× .				-24.7dbm
		20 Kc	•	At least	12 db belo	ow Reference	*	-50.0dbm
	י רויוא	ED MANTIT AM	ON DISTORT	OM				
				ION		Notes in the Paris		
F	7.	One MW-503	A Link		•	Minimum Ratio	_	-45 7 db
Ţ	REC	EIVED SIGNA	AL POWER			45 db _{TAL}	("A" "B"	-45.1db -45.0db
		Receiver A	1 011 1111					40 4dh m
	A.,				1			<u>-49.4</u> dbm
1	3.	Receiver B						-50.6dbm

5.

BR II/85 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS LINK TEST

				STATION	TKG
Tra	ansmission Path:	From Station_	TKG	to Station_	TAL
6.	NET PATH LOSS				
	A. NPL, Path A				78.5db
	B. NPL, Path E				79.6.db

C. Discussion - The Net Path Loss (NPL) in this procedure, consists of both fixed and variable losses and fixed gains. The fixed losses are transmission line losses; that is, inherent waveguide attenuation and connector discontinuites. The variable loss is the actual transmission path loss, although relatively constant, it is effected by seasonal changes. It should be noted, however, that short term variations, much greater than the mean, will be experienced during abnormal atmospheric conditions. The fixed gains are the sum of the gains of transmitting and receiving antennas. Since the NPL is relatively constant, except as noted, it can be used as a future guide to antenna orientation and transmission line condition.

NOTE: During NPL check heavy rain noted at site TAL, time 1445, 12-13-63.

BR II/85 Rev.

BIG RALLY II PROJECT

DATA SHEET

		STATION	TKG
Transmission Path:	From Station TKG	_ to Station	TAL
		EXPECTED	ACTUAL
7. SIGNAL-TO-NOISE I	OITAS		
A. Receiver A	(Refer to FIG. this procedure		66.0 db
B. Receiver B	expected result		64.0 db

DATE	13 1	December	1963
TESTER_	W. Darl	atil	
SUPERVIS	61 /	1 11 .	& Burles
QUALITY	ASSU	RANCE	al MalBowing
GEEIA /	Der	ald dy	Vertamon of

FEDERAL ELECTRIC CORPORATION BR 11/85 Rev.

BIG RALLY II PROJECT

DATA SHEET

			STATION TKG
Tra	insm	ission Path: From Station TKG	to Station TKA
			EXPECTED ACTUAL
1.	DIV	ERSITY TESTS (ALL CONFIGURATIONS)	
	Α.	Pilot Level at A IN terminals of Control Panel	-47 to -53 db52.6db
	В.	Pilot Level at B IN terminals of Control Panel	-47 to -53 db51_3db
	C.	Pilot Level at SIG OUT terminals of Control Panel with SERVICE SWITCH in A-DISABLE position.	-50 = 0.25 db50 db
	D.	Pilot Level at SIG OUT terminals of Control Panel with SERVICE SWITCH in B-DISABLE position.	-50 ⁺ 0. 25 db50 db
	E.	Stabilized Pilot Level change at SIG OUT terminals of control panel with "A" power off.	† 1. 0 dbdb
	F.	Stabilized Pilot Level change at SIG OUT terminals of Control Panel with "B" power off.	+ 1.0 db
	G.	Pilot Level at SIG OUT terminals with distant transmitter TX B on the air (Space Diversity and Hot-Standby configurations only).	-50 ± 0.5 db N/A db
2.	BAS	SEBAND	
E	A.	Level, 100 Kc RX	-34 + 0.5 db31,0 db
		(GPA ONLY)	-40 ± 0.5 db

BR II/85 Rev.

BIG RALLY II PROJECT

DATA SHEET

B. Frequency			EXPECTED	ACTUAL
12 Ke		CA-CDA I tale O-	1-1	W/A 32.
60 Kc		(GA-GPA Link On	' y'	N/A db
				_311.5 db
100 Ke			+	-3/1.0 db
200 Ke			_0.5 db From 100 Kc Reference	_311.0 db
			Level	
350 Kc				-3/1.0 db
· 400 Kc				_33.8 db
500 Ke				_33.9 db
ORDER WIRE				
A. Level, 1 Kc	RX		-25 + 1 dbm	_25_0dbm
B. Frequency R				
0.5 Kc				_25_8dbm
1 Ke				
1.5 Ke			-2 db + 1 db	25_0dbm
1.0 126			From 1 Kc	
			Reference Level	
2 Kc				_21,8 dbm
2.5 Kc				-21_8 dbm
3 Kc				21,8 dbm
20 Ke		At least 12 db belo	ow Reference	-61:0 dbm
INTERMODULAT	ION DISTORTI	ON		
A. One MW-503			Minimum Ratio	
11, OHO HIII 000			45 db	15.2 db
RECEIVED SIGNA	AL POWER			
A. Receiver A				_52.1 db m
B. Receiver B				1_1,7_6 dbm
				4-172
		Sheet 2 of 4	• • • • • •	

BR II/85 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS LINK TEST

		STATION	TKG .
Transmission Path:	From Station TKG	to Station TKA	
6. NET PATH LOSS			
A. NPL, Path A			_80.9_db
B. NPL, Path B			-77.7_db

C. Discussion - The Net Path Loss (NPL) in this procedure, consists of both fixed and variable losses and fixed gains. The fixed losses are transmission line losses; that is, inherent waveguide attenuation and connector discontinuites. The variable loss is the actual transmission path loss, although relatively constant, it is effected by seasonal changes. It should be noted, however, that short term variations, much greater than the mean, will be experienced during abnormal atmospheric conditions. The fixed gains are the sum of the gains of transmitting and receiving antennas. Since the NPL is relatively

guide to antenna orientation and transmission line condition.

constant, except as noted, it can be used as a future

FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS LINK TEST

BR II/85 Rev.

STATION TKG

Transmis	ssion Path:	From Station	TKG to S	Station TKA	
				EXPECTED	ACTUAL
7. SIGN	AL-TO-NOISI	RATIO			
A.	Receiver A		r to FIG. 9 of		-62,0 db
В.	Receiver B		procedure for the	ie	_66_0 db

TESTER 1963

TESTER 1963

SUPERVISOR VILLE AND A BROKE GEELA Roll of the second of the

BR II/85 Rev.

BIG RALLY II PROJECT

DATA SHEET

The same			•	STATION	TAL	
Tra	nsm	ission Path: From Station TAL	to	Station	TKG	
1.	DIV	ERSITY TESTS (ALL CONFIGURATIONS)		EXPECTED	AC"	TUAL
	A.	Pilot Level at A IN terminals of Control Panel	-47	to -53 db	- 52	db
	В.	Pilot Level at B IN terminals of Control Panel	-47	to -53 db	<u>-52</u>	_db
	C.	Pilot Level at SIG OUT terminals of Control Panel with SERVICE SWITCH in A-DISABLE position.	-50	章 0.25 db	-5 0	_db
	D.	Pilot Level at SIG OUT terminals of Control Panel with SERVICE SWITCH in B-DISABLE position.	-50	⁺ _ 0. 25 db	<u>-50</u>	_db
	E.	Stabilized Pilot Level change at SIG OUT terminals of control panel with "A" power off.	<u>†</u> 1.	0 db	-50	db
	F.	Stabilized Pilot Level change at SIG OUT terminals of Control Panel with "B" power off.	<u>+</u> 1.	0 db	-50	_db
	G.	Pilot Level at SIG OUT terminals with distant transmitter TX B on the air (Space Diversity and Hot-Standby configurations only).	-50	† 0.5 db	<u>-50</u>	_db
2.	BAS	SEBAND				
	A.	Level, 100 Kc RX	-34	+ 0.5 db	-34	_db
		(GPA ONLY)	-40	+ 0.5 db		

BR II/85 Rev.

BIG RALLY II PROJECT

DATA SHEET

		EXPECTED	ACTUAL
B.	Frequency		
	12 Ke	(GA-GPA Link Only)	N/A db
	60 Ke		31,2db
	100 Ke		_34 db
	200 Ke		_33.7db
		100 Kc Reference Level	: : : :
	350 Kc		-33.9 db
	· 400 Kc		_33_9db
	500 Kc		_34 db
OR	DER WIRE		
Α.	Level, 1 Kc RX	-25 ± 1 dbm	-25 dbm
B.	Frequency Response		
	0.5 Kc		-25.2 dbm
	1 Ke		_25 dbm
	1.5 Ke	-2 db + 1 db	
		From 1 Kc Reference Level	_25_dbm
	2 Ke		dbm
	2.5 Kc		-25 dbm
	3 Ke		_25 dbm
	20 Kc	At least 12 db below Reference	-li3 dbm
	AND TOURIST AMIONI DIGMODMI	TON.	
	ERMODULATION DISTORT		
Α,	One MW-503A Link	Minimum Ratio 45 db	lió db
RE	CEIVED SIGNAL POWER		
A.	Receiver A		17.2 dbm
B.	Receiver B		148.2 dbm
			4-176
		Sheet 2 of 4	, . , -

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS LINK TEST

		STATION_	TAL .
Transmission Path:	From Station_	TAL to Station	TKG
6. NET PATH LOSS			61-1 ₂ (888)
A. NPL, Path A			75_db
B. NPL. Path E			

C. Discussion - The Net Path Loss (NPL) in this procedure, consists of both fixed and variable losses and fixed gains. The fixed losses are transmission line losses; that is, inherent waveguide attenuation and connector discontinuites. The variable loss is the actual transmission path loss, although relatively constant, it is effected by seasonal changes. It should be noted, however, that short term variations, much greater than the mean, will be experienced during abnormal atmospheric conditions. The fixed gains are the sum of the gains of transmitting and receiving antennas. Since the NPL is relatively constant, except as noted, it can be used as a future guide to antenna orientation and transmission line

condition.

FEDERAL ELECTRIC CORPORATION BR II/85 Rev.

BIG RAILY II PROJECT

DATA SHEET

						STATIO			TAL	
Transmission Path:			From	Stati	ion	TAL	to	Station_	TKG	
	1						EX	PECTED	ACTUA	L.
7.	SIC	MAL-TO-NOISE	RATIO							
	A.	Receiver A				to FIG.			73	_db
B. Receiver B		Receiver B			expect	ed resul	.ts.)	72	_db

DATE 13 DECEMBER,	1963
TESTER	21. 1
SUPERVISOR Jonale	1 & mia
QUALITY ASSURANCE	E THE WARTER
GEELA Palah S. A.	Truck.

BR II/85 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS LINK TEST

					•	STATION_	TKA	
Tra	nsm	Ission Path:	From Station_	TKA	to	Station_	TKG-	
	1		•			EXPECTED		ACTUAL
1.	DIV	ERSITY TESTS (AL	L CONFIGURATI	IONS)				4
	A.	Pilot Level at A I Control Panel	N terminals of		-47	to -53 db	50_	_50 db
	В.	Pilot Level at B I	N terminals of		-47	to -53 db	99.5	-119.5db
	C.	Pilot Level at SIG Control Panel with in A-DISABLE pos	SERVICE SWIT		-50	^事 0.25 db	5 <u>0</u>	-50 db
	D.	Pilot Level at SIG Control Panel with in B-DISABLE pos	SERVICE SWIT	of CH	-50	+ 0.25 db	50 <u>.</u>	-50 db
	E.	Stabilized Pilot Le terminals of contre power off.			<u>†</u> 1.	0 db	<u> 5 c</u>	0 db
	F.	Stabilized Pilot Le terminals of Contr power off.	-		+ 1.	0 db	50	0 db
	G.	Pilot Level at SIG distant transmitter (Space Diversity as configurations only	TX B on the ai	r	-50	† 0.5 db	N	/A db
2.	BAS	SEBAND						
	A.	Level, 100 Kc RX			-34	+ 0.5 db		hh db
			(GPA	ONLY)	-40	+ 0.5 db	<i>y</i>	
			(TKA	CNLY)	-44	£ 0.5 db		

4-179.

BR II/85 Rev.

BIG RALLY II PROJECT

DATA SHEET

B.	Frequenc	e y		EXPECTED	ACTU	LAL
	12	Ke	(GA-GPA Link Onl	ly)	N/A	db
	60	Ke			-44	db
	100	Ke			-44	db
	200	Kc		to. 5 db From	-44	- db
				100 Kc Reference Level		-,
*	350	Kc		Tevel	-44	db
	. 400	Ke .			-43.8	3 db
	500	Kc			-43.9	db
ORI	DER WIRE					
A.	Level, 1			-25 ⁺ 1 dbm	-25	dbm
В.		y Response			/5	
		Ke			- 26	dbm
		Ke				dbm
	1.5			-2 db + 1 db		_
				From 1 Kc	مح	
				Reference Level	- 25	
		Ke			,	dbm
	2.5				-24.6	
		Ke			-24.	
	20	Ke	At least 12 db belo	ow Reference	-42	_dbm
INT	ERMODUI	LATION DISTORT	ION			
A.	One MW-	-503A Link		Minimum Ratio		17
				45 db	4.5	_db
		IGNAL POWER			1.6 7	J2
A.	Receiver				and disable on might studen	dbm
В.	Receiver	В			54.5	_dom
111			Sheet 2 of 4		4-186	

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS LINK TEST

	STATION_	TKA .
Transmission Path:	From Station TKA to Station	TKB
6. NET PATH LOSS		
A. NPL, Path A		776. db
D NDI Doth R		75. 75.4_db

Discussion - The Net Path Loss (NPL) in this procedure, consists of both fixed and variable losses and fixed gains. The fixed losses are transmission line losses; that is, inherent waveguide attenuation and connector discontinuites. The variable loss is the actual transmission path loss, although relatively constant, it is effected by seasonal changes. It should be noted, however, that short term variations, much greater than the mean, will be experienced during abnormal atmospheric conditions. The fixed gains are the sum of the gains of transmitting and receiving antennas. Since the NPL is relatively constant, except as noted, it can be used as a future guide to antenna orientation and transmission line condition.

BR II/85 Rev.

BIG RALLY II PROJECT

DATA SHEET

					STAT	ION TKA	
Tra	nsm	ission Path:	From	Station TKA	to Station_	TKG	
7.	SIG	NAL-TO-NOISE RA	TIO		EXPE	CTED	ACTUAL
		Receiver A		(Refer to FIG. this procedure			70 db
	В.	Receiver B		expected result			69 db

DATE	24 OCTOBER, 1963
TESTER_	Large Hamption
SUPERVIS	OR Carried 11 - hand
QUALITY	ASSURANCE AMMelingation
GEEIA	Calabus Kruger

BR II/85 Rev.

BIG RALLY II PROJECT

DATA SHEET

			STATION TKA
Tra	ınşmi	Ission Path: From Station TKA	to Station TKR
	,		EXPECTED ACTUAL
1.	DIV	ERSITY TESTS (ALL CONFIGURATIONS)	
	A.	Pilot Level at A IN terminals of Control Panel	-47 to -53 db50.7 db
	В.	Pilot Level at B IN terminals of Control Panel	-47 to -53 db50.1 db
	C.	Pilot Level at SIG OUT terminals of Control Panel with SERVICE SWITCH in A-DISABLE position.	-50 - 0.25 db50 db
	D.	Pilot Level at SIG OUT terminals of Control Panel with SERVICE SWITCH in B-DISABLE position.	-50 ⁺ 0.25 db <u>-50</u> db
	E.	Stabilized Pilot Level change at SIG OUT terminals of control panel with "A" power off.	+ 1.0 dbdb
	F.	Stabilized Pilot Level change at SIG OUT terminals of Control Panel with "B" power off.	+ 1.0 dbdb
	G.	Pilot Level at SIG OUT terminals with distant transmitter TX B on the air (Space Diversity and Hot-Standby configurations only).	-50 ± 0.5 db50 db
2.	BAS	SEBAND	
	A.	Level, 100 Kc RX	-34 + 0.5 dbh4 db
geri.		(GPA ONLY)	-40 ± 0.5 db
· [1]		(TKA CNLY)	₩ -44 £ 0.5 db
7-76-			

BR II/85 Rev.

BIG BALLY II PROJECT

DATA SHEET

			r	
B. Frequency		EXPECTED	ACTU	JAL
	/GA GDA 7/41 04		N7 / A	
12 Ke	(GA-GPA Link Only	y)	N/A	1 1
60 Kc			-44-7	
100 Ke		_	-44.2	_db
200 Kc		_0.5 db From 100 Kc Reference	-44-7	_db
		Level	•	1
. 350 Ke			-44	db
· 400 Ke			-1,1,	db
500 Ke			-44.2	db
ORDER WIRE				
A. Level, 1 Kc RX		-25 + 1 dbm	-25	dbm
B. Frequency Response				
0.5 Kc			-25.5	dbm
i Kc			-25	dbm
1.5 Ke		-2 db + 1 db		_
		From 1 Ke		
明治を 開発 - 1000 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000		Reference Level		
2 Ke			-24.5	-
2.5 Kc			-24.8	_
3 Kc			-24.6	_
20 Kc	At least 12 db belo	w Reference	-65.5	_dbm
INTERMODULATION DISTORT	ION			
A. One MW-503A Link		Minimum Ratio		
		45 db	46	db
RECEIVED SIGNAL POWER				
A. Receiver A			40.5	dbm
B. Receiver B			146.5	_dbm
			1-184	
	Sheet 2 of 4	•		

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS LINK TEST

		STATION_	TKA .
Transmission Path:	From Station_	TKA to Station_	TKR
6. NET PATH LOSS			
A. NPL, Path A			70.3 db
B. NPL, Path E			76.3db

The Net Path Loss (NPL) in this procedure, consists of both fixed and variable losses and fixed gains. The fixed losses are transmission line losses; that is, inherent waveguide attenuation and connector discontinuites. The variable loss is the actual transmission path loss, although relatively constant, it is effected by seasonal changes. It should be noted, however, that short term variations, much greater than the mean, will be experienced during abnormal atmospheric conditions. The fixed gains are the sum of the gains of transmitting and receiving antennas. Since the NPL is relatively constant, except as noted, it can be used as a future guide to antenna orientation and transmission line condition.

FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT

BR II/85 Rev.

DATA SHEET

MW-503A LOS LINK TEST

	4				STATION	TKA	
Tr	ansm	ission Path:	From Station	TKA t	o Station	TKR	
					EXPECTE	D A	TUAL
7.	SIG	NAL-TO-NOISE RA	TIO			44.1	
	A.	Receiver A		to FIG. 9		73	db
	В.	Receiver B		d results.)		72	db

TESTER CANAL CONTROL SUPERVISOR S

BR II/85 Rev.

BIG RALLY II PROJECT

DATA SHEET

			STATION TKR
Tra	nsm	ission Path: From Station TKR	to Station TKA
1.	DIV	TERSITY TESTS (ALL CONFIGURATIONS)	EXPECTED ACTUAL
	A.	Pilot Level at A IN terminals of Control Panel	-47 to -53 db51.5 db
	В.	Pilot Level at B IN terminals of Control Panel	-47 to -53 db52.0 db
	C.	Pilot Level at SIG OUT terminals of Control Panel with SERVICE SWITCH in A-DISABLE position.	-50 -50.0 db
	D.	Pilot Level at SIG OUT terminals of Control Panel with SERVICE SWITCH in B-DISABLE position.	-50 ⁺ 0.25 db <u>-50.0</u> db
	E.	Stabilized Pilot Level change at SIG OUT terminals of control panel with "A" power off.	† 1.0 db
	F.	Stabilized Pilot Level change at SIG OUT terminals of Control Panel with "B" power off.	+ 1.0 db
	G.	Pilot Level at SIG OUT terminals with distant transmitter TX B on the air (Space Diversity and Hot-Standby configurations only).	-50 ± 0.5 db50.0 db
2.	BAS	SEBAND	
	A.	Level, 100 Kc RX	-34 + 0.5 db -34.0 db
		(GPA ONLY)	-40 ± 0.5 db

FEDERAL ELECTRIC CORPORATION BR II/85 Rev.

BIG RALLY II PROJECT

DATA SHEET

			ACTUAL
B.	Frequency	EXPECTED	ACTUAL
	12 Kc	(GA-GPA Link Only)	N/A db
	60 Kc		-21.5 db
	100 Ke		-31.0 db
	200 Ke	0.5 db From	-31.0 db
		100 Kc Reference Level	i i
•	350 Kc		-34.3db
	· 400 Kc		-31.2db
	500 Ke		-34.5db
ORI	DER WIRE		
A.	Level, 1 Kc R	-25 + 1 dbm	-25.0 dbm
B.	Frequency Resp	ponse	
	0.5 Kc		-25.5dbm
	1 Kc		-25.0 _{dbm}
	1.5 Kc	-2 db + 1 db	
		From 1 Kc Reference Level	-24-8bm
	2 Kc		-24.3 dbm
	2.5 Ke	시간 보이보는 본 경영의 보고 이 성실되다	24.3 dbm
•	3 Ke		-24.2 dbm
	20 Kc	At least 12 db below Reference	-50.0 dbm
INT	ERMODULATION	DISTORTION	•
A.	One MW-503A		
		45 db	46.0 db
REC	CEIVED SIGNAL	POWER	
A.	Receiver A		-lil-li dbm
В.	Receiver B		<u>-39.3</u> dbm
		Sheet 2 of 4	1-188

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS LINK TEST

		STATION_	rkr .
Transmission Path:	From Station TKR	to Station TKA	3
6. NET PATH LOSS			
A. NPL, Path A			70.8 _db
B. NPL, Path E			67.9db

C. Discussion - The Net Path Loss (NPL) in this procedure, consists of both fixed and variable losses and fixed gains. The fixed losses are transmission line losses; that is, inherent waveguide attenuation and connector discontinuites. The variable loss is the actual transmission path loss, although relatively constant, it is effected by seasonal changes. It should be noted, however, that short term variations, much greater than the mean, will be experienced during abnormal atmospheric conditions. The fixed gains are the sum of the gains of transmitting and receiving antennas. Since the NPL is relatively constant, except as noted, it can be used as a future guide to antenna orientation and transmission line

condition.

BR II/85 Rev.

BIG RALLY II PROJECT

DATA SHEET

								DIAII	OW TIME		-
Tr	ansmission	Path:		From	Station	TKR	_ to St	ation_	TKA		1
								EXPE	CTED	ACT	UAL
7.	SIGNAL-	ro-nois	E RAT	IO							
	A. Rece	eiver A				er to FIG. procedure				71.0	_db
	B. Rece	eiver B				ected result				72.0	_db

DATE 23 OCTOBER 1963
TESTER Canal Hand
SUPERVISOR (
QUALITY ASSURANCE
GEELA Rolphs. Hager

BR II/85 Rev..

BIG RALLY II PROJECT

DATA SHEET

		STATION TKR
Trạn	smission Path: From Station TKR	to Station TIZ
1.	DIVERSITY TESTS (ALL CONFIGURATIONS)	EXPECTED ACTUAL
	A. Pilot Level at A IN terminals of Control Panel	-47 to -53 db -52.1 db
	B. Pilot Level at B IN terminals of Control Panel	-47 to -53 db -51.5 db
	C. Pilot Level at SIG OUT terminals of Control Panel with SERVICE SWITCH in A-DISABLE position.	-50 - 0. 25 db -50.1 db
1	O. Pilot Level at SIG OUT terminals of Control Panel with SERVICE SWITCH in B-DISABLE position.	-50 ⁺ 0. 25 db -50.0 db
1	E. Stabilized Pilot Level change at SIG OUT terminals of control panel with "A" power off.	† 1.0 db -0.60 db
	F. Stabilized Pilot Level change at SIG OUT terminals of Control Panel with "B" power off.	+ 1.0 db -0.40 db
	G. Pilot Level at SIG OUT terminals with distant transmitter TX B on the air (Space Diversity and Hot-Standby configurations only).	-50 ± 0.5 db -50.2 db
2.	BASEBAND	
	A. Level, 100 Kc RX	-34 + 0.5 db -3/1,2 db
	(GPA ONLY)	-40 ± 0.5 db

FEDERAL ELECTRIC CORPORATION BR II/85

Rev.

BIG RALLY II PROJECT

DATA SHEET

				1 oray	## T
B.	Frequency		EXPECTED	ACTU	3A.L
	12 Ke	(GA-GPA Link Only)		N/A	db
	60 Ke			-34.5	db
	100 Ke)		-34.2	db
	200 Ke	+	0.5 db From	-34.0	_db
			00 Kc Reference evel		1
	350 Ke			-34.2	_db
	· 400 Ke			-34.0	_db
	500 Ke			-34.2	db
OR	DER WIRE				
A.	Level, 1 Kc RX		25 ⁺ 1 dbm	-25.0	dbm
B.	Frequency Response				
	0.5 Ke			-25.4	dbm
	1 Ke			-25.1	dbm
	1.5 Ke		2 db + 1 db		
			rom 1 Kc Leference Level	~25.1	_dbm '
	2 Ke			-25.1	dbm
	2.5 Ke			-25.0	dbm
•	3 Ke			-24.9	dbm
	20 Kc	At least 12 db below	Reference	-56.5	dbm
INT	TERMODULATION DISTORT	ON			
Α.	One MW-503A Link		Minimum Ratio	,	
			45 db	<u>1,5</u>	d b
RE	CEIVED SIGNAL POWER				,
Α.	Receiver A			-37.9	
В.	Receiver B			-39.4	
11		Sheet 2 of 4		4-19.	2 '

BR II/85 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS LINK TEST

		STATION_	TKR
Transmission Path:	From Station	TKR to Station	TIZ
6. NET PATH LOSS			
A. NPL, Path A			67.0 db
B. NPL, Path E			68.5 db

C. Discussion - The Net Path Loss (NPL) in this procedure, consists of both fixed and variable losses and fixed gains. The fixed losses are transmission line losses; that is, inherent waveguide attenuation and connector discontinuites. The variable loss is the actual transmission path loss, although relatively constant, it is effected by seasonal changes. It should be noted, however, that short term variations, much greater than the mean, will be experienced during abnormal atmospheric conditions. The fixed gains are the sum of the gains of transmitting and receiving antennas. Since the NPL is relatively constant, except as noted, it can be used as a future guide to antenna orientation and transmission line condition.

NOTE: The NPL test was performed on S November time 1930, and on 12 November time 1210. Readings on both days were the same.

BR II/85 Rev.

BIG RALLY II PROJECT

DATA SHEET

				STATION	TKR
Transı	mission Path:	From Static	n TKR	to Station	TIZ
				EXPECTE	ED ACTUAL
7. SI	GNAL-TO-NOISE R	ATIO			
Α.	Receiver A		efer to FIG.		2vdc) 76.0 db
В.	Receiver B	ex	pected resul	ts.) (AGC=2.	0vdc) 77.0 db

DATE	12 NOVEMBER 1963	
TESTER	22 9	
SUPERVISO	Rett. Si.	
QUALITY A	SSURANCE Me	Borning
CEPTA VE	פאנות העדעת העדעדה	. 0

BR II/85 Rev.

BIG RALLY II PROJECT

DATA SHEET

		A great Middle game than the	STATION	•
Tra	nsm	ission Path: From Station TIZ	to Station TKR	
1.	DIV	ERSITY TESTS (ALL CONFIGURATIONS)	EXPECTED	ACTUAL
	A.	Pilot Level at A IN terminals of Control Panel	-47 to -53 db	- 51.5 db
	В.	Pilot Level at B IN terminals of Control Panel	-47 to -53 db	-51.0 db
	C.	Pilot Level at SIG OUT terminals of Control Panel with SERVICE SWITCH in A-DISABLE position.	-50 - 0.25 db	-50.0 db
	D.	Pilot Level at SIG OUT terminals of Control Panel with SERVICE SWITCH in B-DISABLE position.	-50 ⁺ 0.25 db	-50.0 db
	E.	Stabilized Pilot Level change at SIG OUT terminals of control panel with "A" power off.	+ 1.0 db	25 db
	F.	Stabilized Pilot Level change at SIG OUT terminals of Control Panel with "B" power off.	+ 1.0 db	5 db
	G.	Pilot Level at SIG OUT terminals with distant transmitter TX B on the air (Space Diversity and Hot-Standby configurations only).	-50 ± 0.5 db	-50 db
2.	BAS	SEBAND		:
	·A.	Level, 100 Kc RX	-34 + 0.5 db	e54.0 db
		(GPA ONLY)	-40 ± 0.5 db	

FEDERAL ELECTRIC CORPORATION BR II/85 Rev.

BIG RALLY II PROJECT

DATA SHEET

		EXPECTED	ACTUAL
B.	Frequency		
i i	12 Kc	(GA-GPA Link Only)	N/A db
	60 Kc	기계를 하는 이번 사람이 없는 그들이 살려왔다.	_31,3 db
	100 Kc		-34.0 db
	200 Ke	_0.5 db From	-33.9 db
		100 Kc Reference Level	
	350 Ke		-34.0 db
	· 400 Kc		-31,0 db
	500 Ke		-34.2 db .
ORI	DER WIRE		
	Level, 1 Kc RX	-25 ⁺ 1 dbm	-25.0 dbm
B.	Frequency Response		
	0.5 Kc		-24.8 dbm
	1 Ke		- 25.0 dbm
	1.5 Ke	-2 db + 1 db	
		From 1 Kc	
		Reference Level	-24.8 dbm
	2 Kc	됐잖다님이 어느 보고 있다. 그리고 시작하고 말	-21.8 dbm
	2.5 Ke		-24-6 dbm
	3 Ke	# 그리고 중요하면 하는 말 하기를 받다.	-24.8 dbm
	20 Ke	At least 12 db below Reference	_50_0 dbm
INT	ERMODULATION DISTORT	TION	
A.	One MW-503A Link	Minimum Ratio	
		EEIA DUE TO LACK OFTEST EQUIPPENT.	16 db **
REC	CEIVED SIGNAL POWER		a 36.6
A.	Receiver A		dbm
B.	Receiver B		dbm
		Sheet 2 of 4	4-196

BR II/85 Rev.

BIG RALLY II PROJECT

DATA SHEET

MW-503A LOS LINK TEST

	3							STATIC	N_T	IZ	
Tra	nsmi	lssion	Path:	From	Station	ı TIZ	to	Station	T	KR	
6.	NET	PĂTI	H LOSS								
	A.	NPL,	Path A						6	6.3 db	
	в.	NPL,	Path E						6	6.4 db	

Discussion - The Net Path Loss (NPL) in this procedure, consists of both fixed and variable losses and fixed gains. The fixed losses are transmission line losses; that is, inherent waveguide attenuation and connector discontinuites. The variable loss is the actual transmission path loss, although relatively constant, it is effected by seasonal changes. It should be noted, however, that short term variations, much greater than the mean, will be experienced during abnormal atmospheric conditions. The fixed gains are the sum of the gains of transmitting and receiving antennas. Since the NPL is relatively constant, except as noted, it can be used as a future guide to antenna orientation and transmission line condition.

FEDERAL ELECTRIC CORPORATION BR II/85 Rev BIG RALLY II PROJECT DATA SHEET MW-503A LOS LINK TEST

						STATION	444	
Transm	ission Path	•	From Statio	n Tiz	to	Station	IKR	
						EXPECTE	D	ACTUAL
7. SIG	NAL-TO-N	OISE RATI	0				1.0	
Α.	Receiver	A		efer to FIG				-75 db
				s procedure		ne		
B.	Receiver	B	ex	pected resul	lts.)			-75 db

DATE IN NOVEMBER, 1353 TESTER SUPERVISOR QUALITY ASSURANCE

FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET AN/TRC-35 STATION

BRII/31

	STATION	GK	
Tr	ansmission Path: From Station GK to Station	GAR '	
Tr	ansmitter Serial No. #1 392 , #2 3557		
As	signed Frequency 246.5 MC		
Tr	ansmitter, T302/TRC		
	EXPECTED		TUAL XMTG#2
1,	FREQUENCY ±.002% of assigned ²¹ +	6.498365мс	246.50MC
2.	POWER OUTPUT Minimum 50 Watts	80 Watts	83 Watts
3.	AUTOMATIC FREQUENCY CONTROL	RSK	RSKInitials
4.	LOW POWER ALARM Maximum 30 Watts RF Output Power	28 Watts	28 Watts

DATE_	17 Jar	nuary 1964	
TESTER	3	, GRA	0.30
SUPERV	150R /_	Racid	chas
QUALITY	Y ASSUF	RANCERO	· (0, 1.
	GE	EIA/2/3/21	Asic.
Sheet	tl of l		1

BRII/31

FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET AN/TRC-35 STATION

and the second s	STATION	GAR	
Transmission Path: From Station Gar	to Station	GK	
Transmitter Serial No. #1 2278 , #2	375		
Assigned Frequency 235.5 MC			
Transmitter, T302/TRC			
EXI	PECTED	AC	TUAL
		XMTG#1	XMTG#2
1. FREQUENCY +4710 ±.002% or	f assigned35.4	96.058 MC2	35.493 MC
2. POWER OUTPUT Minimum	50 Watts	60 Watts	60 Watts
3. AUTOMATIC FREQUENCY CONTROL		RSK RS	K Initials
4. LOW POWER ALARM Maximum RF Output Power	30 Watts	28 Watts	28 Watts

•		
DATE	15 January 1964	
TESTER	St Barolf	<i>,</i>
SUPERVI	ISOR I // Sojand)),
QUALITY	y assurance 111. Cano	J.
Sheet	Gerolalph S. Asia	ajes

FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT

BRII/32

DATA SHEET AN/TRC-35 STATION

	STATION_	GK.
Transmission Path: From Station_	GK · to Station	GAR
Receiver Serial No. #1 2278	, #2 2286	
RECEIVER, R-417/TRC (TRC-35)		
	EXPECTED	ACTUAL
		REC#1 REC#2
1. SQUELCH (SENSITIVITY)		
Measure meter reading (C)	approximately 30µa	30 μа 30 μа
Measure meter reading (H)		20 μа 20 μа
Input Signal Level	Max 250 μ v	108 μν 160 μν
2. BANDWIDTH		
Lower limit	236.0340	00 kc235.866. kc
Upper limit	235.478.0	000 kc 235.428. kc
	540kc ±25 kc	
Bandwidth	540KC ±25 KC))0.00xc)3/.2/2 kc
	DATE 17 Janu	uary 1964
	TESTER 3 6	RCL no
	SUPERVISOR //	2 allarita

Sheet 1 of 1

QUALITY ASSURANCE (1) COMO

FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET AN/TRC-35 STATION

BRII/32

		STAT	rion	,
Transmission Path:	From Station	GAR . to St	tation GK	•
Receiver Serial No.	#1 229	, #Ż	177	

RECEIVER, R-417/TRC (TRC-35)

EXPECTED	AC	CUAL
	REC#1	REC#2
1. SQUELCH (SENSITIVITY)		
Measure meter reading (C) approximately 30µa	30 μα	. 30 μa
Measure meter reading (H)	6 μа	<u>б</u>
Input Signal Level Max 250 μv	250 μν	250 μ v
2. BANDWIDTH	200	265
Lower limit	350 kc	300 kc
Upper limit	550 kc	565 kc
Bandwidth 540kc ±25 kc	··kc	kc

	15 January 1964
DATE	
TESTER	Do Bayott
SUPERVI	SOR ETILL VERLAND
QUALITY	ASSURANCE (1/100)
	GEEN Ralph Stilley
	Sheet 1 of 1

BRII/33

5-5

FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET

AN/TRC, 35 OVERALL TEST

	100 C			STATION _	GK	
T	ransmission Path:	From Station	GK	to Station	GAR	
		_				
Deleted	R:F DEVIATION by Errata shee	N AND BASEBA t, dated 23 Se EXP	ND GAIN eptember ECTED	1963 XMTG-	ACTUA	L TG-REC#2
	Signal level (Step Signal level (Step Receiver output (Receiver output ((I) Step(F) -6	dbm +0.5dbm		μν μν dbm dbm	μν μν dbm dbm
2.	BASEBAND FRE	QUENCY RESPO	NSE			
	FREQUENCY	EXP	ECTED	Y) (mc	ACTUA	
	H.P. 200CD			XMTG-	REC#1 XM	ITG-REC#2
	8KC 16KC 32KC 48KC 68KC 90KC	Within sof the 8 leve	KC l db from		dbm dbm dbm dbm dbm dbm	dbm dbm dbm dbm dbm dbm
		8 KC le	vel			
3,	ANTENNA VSWR	and it is an				
	Transmit Antenna		ECTED		ACTUAL	
	Forward M		la .a	,	30 µа 2 µа	
	Receive Antenna	Current		· · ·		
		inimum 30 aximum 10,			32 µa.	
			DATE	17 Ja	nuary 1964	
					WEET	
			TESTE	R B	FAMILY)	. 17
			SUPER	VISOR 27.6	8. alla	reda,
			QUALI	TY.ASSURA	NCE MU	Jan 1/2_
				GEEL	A 12 C1.1.0	11.11
		•	S	heet 1 of 1	- Blisty Blistell	Charles of the

BRII/33

FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET

AN/TRC, 35 OVERALL TEST

	•			ST	ATION	GAR		
Transm	ission Pa	th: From St	ationG	AR to	Station _	GK		
1. BeFet	DEVIA	ion and b	SERAND, EXPECT	Section	see Revises 9.1 of the XMTG-R	e Test pro	ocedure. UAL XMTG-REC#	2
Signa Recei Recei	ver outp	tep(I) ut (Step(F) ut (Step K)	-6 db:	5dbm		μν dbm dbm	μν μν dbm dbm	
4		REQUENCY					.*•	·,.
	DUENCY		EXPECT	red	XMTG-R	ACT	UAL XMTG-REC#	2
	200CD				111111111111111111111111111111111111111	.,		
8K 16K		7	Vithin ±1 d	,		_dbm _	dbm dbm	
32K			f the 8 KC			dbm	dbm	
48K			level		-	dbm	dbm	
68K				. *****		dbm	dbm	
90K	C		east 35db f KC level			_dbm	dbm	
3. ANTE	NNA VS	WR						
			EXPECT	red		ACTU	AL .	
Trans	smit Ante	nna Current				30	4.	
	rward flected	Minimum Maximum	30µа 10µа			10_	μa _μa	
Recei	ve Anten	na Current			•••			
1.4	rward flected	Minimum Maximum	30µа 10µа			30	ıa ıa	
			D.	ATE	15 Januar	y 1964		
				ESTER	925	Beren	25	
			S	UPERVI	sor =	1/1/0	1/12/10	
			Ω	UALITY	ASSURAN	-	(bi /	~
•		•		Shee	GEE1	A Real	ph Sitte	cg

FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET AN/TRC-35 LINK TESTS

BR II/34

				STATIO	N GK	
				1		
Transmission Path: From GAF	1	o GK				
1) Deviation	s	SYS #1			SYS #2	
a) MTR CAL, TX		RSK	INT		· RSK	INT
b) 1 KC ADJ, TX	_	RSK	INT		RSK	INT
c) MOD ADJ, TX		RSK	INT		RSK	INT
d) TEST OSC ADJ, TCC-3		RSK	INT	1 18	RSK	INT
e) MOD 1 KC IN, TX	_	RSK	_INT ·		RSK	INT
f) MTR CAL, RX	_	RSK	INT		RSK	INT
g) 1 KC OUT, RX, LINK	·	RSK	_INT		RSK	INT
2) Baseband Frequency Response			#1		REC #2	
TCC-3 TX (1KC) Level	0 . (dbm				
8 KC		-1.4	dbm		-2.1	_dbm
16 KC		-1.5	dbm		-1.9	_dbm
	LEVEL		dbm		-2.3	_dbm
48 KC		-1.9	dbm		-2.4	dbm
68 KC		-2.0	dbm		-2-4	_dbm
90 KC At least 35 dk	_	→ 7:/	dbm		-46	_dbm
from 8 KC LI	7 A 17.1	~				
2) Noise Beeks and Emissions Tor					•	
3) Noise Peaks and Spurious Tor	ies					
FREQ	s	YS #1	NO	SE LEV	EL YS #2	
KC	_		dbm			dbm
	· // _		dbm	_		_dbm
			dbm	_		_dbm
NOTE * NO NOISE GREATER	THAN -60_	dbm	dbm			_dbm
			dbm	× _		dbm
NOTE: Record all noise p	eaks or to	nes great	er tha	n -55 dl	om.	
	DATE_1	6 JAN. 1	964			
	TESTER	3.	(9-R	TY_	mar	
	SUPV.	7.60	acq	ligh	,	
	QA	lloui.	0((00,1	1.40	
	GEEIA	Ac Pph	A. m	51	-3	

FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET AN/TRC-35 LINK TESTS

BR II/34

5-8

				STATIO	N GAR	
Transmission Path: From	GK	to	GAR			
1) Deviation		SYS #1			SYS #2	
a) MTR CAL, TX		RSK	INT		RSK	INT
b) 1 KC ADJ, TX		ESK	INT		RSK	INT
c) MOD ADJ, TX	1 1 - 1 - 19	RSK	INT		RSK	INT
d) TEST OSC ADJ, TCC-3		rsk	INT		RSK	INT
e) MOD 1 KC IN, TX		RSK	INT		rsk	INT
f) MTR CAL, RX	* *	RSK	INT		RSK	INT
g) 1 KC OUT, RX, LINK		RSK	INT		Rak	INT
2) Baseband Frequency Response	EXPEC	TED REC	2 #1		REC #2	
TCC-3 TX (1KC) Level	0	_dbm				
8 KC		+2.2	dbm		-2.1	_dbma
16 KC ¹ 1 dk	of	+2.5	dbm		-2.0	dbm
32 KC 8 KC	LEVEL	+2.5	dbm		-2.2.	dbm
48 KC		+2.9	_dbm		-2.2	dbm
68 KC	• • • • • • • • • • • • • • • • • • • •	-201	dbm		=107	dbm
90 KC At least 35 db	down	-54	dbm		-48	dbm
from 8 KC LE	VEL :					
3) Noise Peaks and Spurious Tone	es					
FREQ			T/T (ISE LEV	ਨਾ. `	
F.B.E.W	North Assessment	SYS #1	11,0		SYS #2	
KC			dbm			dbm
Note: No noise	abova		dbm	-		dbm
			dbm	-		dbm
-60dhm			dbm	-		dbm
			dbm	•		_dbm
				-		
NOTE: Record all noise pe	aks or t	tones grea	ater tha	an -55 dl	om.	
N to: Det. #9, 2140th Comm. Sqd. S/SCT Robert A. Haberly	DATE_		15 Jant	ery 1964		
monitored levels sent	TESTE	R Th	121	or cort	1	
from Site Ck.		17	1/ (1	1	
RSK.	SUPV.	10/1	10.X	10/19 12	1113 .	
	QA /	ll Du	(1/0,00	1/2	
	GEEIA	Da Par	1. 8	155	01	
	-			1		

6-1

	b	STATION GPA
Transmission Path: From Stati	on GPA to Sta	tion GHO
Transmitter Serial #1 4022 Assigned Frequency 369.500	, #2 <u>111:23</u> MC	
Transmitter, T-302/TRC (MRC	-80)	
TRANSMITTER #1	EXPECTED	ACTUAL
I. FREQUENCY	₹.002% of assigned	369.513 MC
2. POWER OUTPUT	Minimum 50 watts	72 watts
3.AUTOMATIC FREQUENCY CONTROL		A.A. // initials
4.LOW POWER ALARM rf output power	Maximum 30 watts	30 watts
TRANSMITTER #2	EXPECTED	ACTUAL
.I. FREQUENCY	₹ .002% of assigned	369.513 MC
2. POWER OUTPUT	Minimum 50 watts	70 watts
3. AUTOMATIC FREQUENCY CONTROL		A.A. Minitials
4. LOW POWER ALARM rf output power	Maximum 30 watts	30 watts
		DATE 7 JANUARY 1964
10 · · · · · · · · · · · · · · · · · · ·		TESTER F. H. Change
		UPERVISOR /
11	QUALITY AS	SSURANCE / F
	CI.	GEETA, "Ant Internal to

		STATION	GHO
Transmission Path: From Statio	on GHO to S	itation	GPA
Transmitter Serial #1 #4427 Assigned Frequency 396 Transmitter, T-302/TRC (MRC	5 MC	21,2	
TRANSMITTER #1	EXPECTED	ACTUAI	
I. FREQUENCY	/ .002% of assigned	396.501.	210 MC
2. POWER OUTPUT	Minimum 50 watts	55	watts
3.AUTOMATIC FREQUENCY CONTROL		RSK	initials
4.LOW POWER ALARM rf output power	Maximum 30 watts	28	watts
TRANSMITTER #2	EXPECTED	ACTU	AL.
I. FREQUENCY	₹.002% of assigned	396,498,	750 MC
2. POWER OUTPUT	Minimum 50 watts	55	watts
3.AUTOMATIC FREQUENCY CONTROL		RSK	initials
4. LOW POWER ALARM rf output power	Maximum 30 watts	28	watts
		DATE_7	January 1964
		TESTER ///	2 Mary 1
		SUPERVISOR (dumalla
	QUALITY	ASSURANCE !	Lavo Casp
		Sheet 1 of 1 GEETA	0.1.4.4.
			6-2

6-3

			STA	TION T	KG	
Transmission Path: From Stati	ion TKG	to Stat	ion_	Ţ	co	
Transmitter Serial #1		707				
TRANSMITTER #I	EXPEC	TED		ACTUAL		
I. FREQUENCY	£ .002% of assi	gned		446.2491	MC MC	
2. POWER OUTPUT	Minimum 50 wo	atts		66	watts	
3.AUTOMATIC FREQUENCY CONTROL				AB	_initials	
4.LOW POWER ALARM rf output power	Maximum 30 w	atts	n •	30	watts	
	TVDTC		ra:			
TRANSMITTER #2	EXPEC	LED		ACTUAL		
I. FREQUENCY	£ .002% of assi	gned		446.2491	_MC	
2. POWER OUTPUT	Minimum 50 w	atts		64	watts	
3.AUTOMATIC FREQUENCY CONTROL				DR	initials	
4. LOW POWER ALARM rf output power	Maximum 30 w	atts	_	30	watts	
			D	ATE 10 De	ecember	1963
			TE	STER /	al T.	Bligar
N A S		S;l	JPERV	ISOR/1/1.	.4//	12 / 1/2 C
	QUAL	ITY ASS	URAN	NCE Joseph	m	1 house
			GEE		ald at	Valor
		Shee	t Tor	7		

			TATION	TKG
Transmission Path: From Stati	on TKG	_to Station	T .	TES
Transmitter Serial #1 Assigned Frequency 455, 250 Transmitter, T-302/TRC (MRC	MC MC	4396 55		
TRANSMITTER #1	EXPEC	CTED	ACTUAL	
I. FREQUENCY	1.002% of assi	gned	*455.2	3_MC
2. POWER OUTPUT	Minimum 50 w	atts	64	watts
3.AUTOMATIC FREQUENCY CONTROL			MK	initials
4.LOW POWER ALARM rf output power	Maximum 30 w	ratts n	29	watts
TRANSMITTER #2	EXPEC	TED	ACTUAL	
I. FREQUENCY	₹ .002% of assi	gned	*455.23	34MC
2. POWER OUTPUT	Minimum 50 w	vatts	69	watts
3.AUTOMATIC FREQUENCY CONTROL			20%	initials
4. LOW POWER ALARM rf output power	Maximum 30 w	atts	30 ·	watts
* OUT OF SPEC.		,	DATE 15 D	ecember 1963
		•	TESTER	x 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
		SUPE	RVISORKIN.	A Hulling
	QUA	LITY ASSUR	RANCE	Malkowing
		Sheet 1	GEGIA 2	rald a Holme

		STATION	TCO
Transmission Path: From Stati	on TCO to Static	on	TKG
Transmitter Serial #1 29 Assigned Frequency 1102.			
Transmitter, T-302/TRC (MRC	80)		
TRANSMITTER #1	EXPECTED	ACTUAL	
I. FREQUENCY	₹.002% of assigned	1,02.762	MC
2. POWER OUTPUT	Minimum 50 watts	75	watts
3.AUTOMATIC FREQUENCY CONTROL		RSK	initials
4.LOW POWER ALARM rf output power	Maximum 30 watts	n <u>28</u>	_watts
TRANSMITTER #2	EXPECTED	ACTUAL	
I. FREQUENCY	₹.002% of assigned	402.761	_MC
2. POWER OUTPUT	. Minimum 50 watts	: 67	watts
3.AUTOMATIC FREQUENCY CONTROL		. RSK	_initials
4. LOW POWER ALARM rf output power	Maximum 30 watts		watts
		DATE 10 F	NG. 1963
· · · · · · · · · · · · · · · · · · ·		TESTER	Sport -
	S _i U	PERVISOR /2 4	hostoi
	QUALITY ASSU	JRANCE 3/1	Mount
	Sheet	1 of 1	2.10 11
	GEELA	nas	an Sidrice f

		STATION	TES
Transmission Path: From	Station TES to S	tation_TKG	
Transmitter Serial #1	23.75 MC		
TRANSMITTER #1	EXPECTED	ACTUA	L
I. FREQUENCY	₹.002% of assigned	<u> 423.731</u>	мс
2. POWER OUTPUT	Minimum 50 watts	_73	watts
3.AUTOMATIC FREQUE CONTROL	•	: MB	initials
4.LOW POWER ALARM rf output power	Maximum 30 watts	7 28	watts
TRANSMITTER #2	EXPECTED	ACTU	ÅL
I. FREQUENCY	₹ .002% of assigned	423.722	MC
2. POWER OUTPUT	Minimum 50 watts	: 75	watts
3.AUTOMATIC FREQUE CONTROL	NCY	MB	initials
4. LOW POWER ALARM rf output power	Maximum 30 watts	28	watts
		DATE of	December 1953
			1. Chich
			Collheck
	QUALITY.	ASSURANCE H	^
	S	heet 1 of GEETA	Relph S. Huger
•			6-6
			and the same of th

DATE 7 January 1964

TESTER

SUPERVISOR

QUALITY ASSURANCE
Sheet I of LETETA

		STATION	GPA		
Transmission Path: From Station	GPA	to Station_	GHO		
Power Amplifier Serial # 27 &	25	_			
Amplifier Power Supply, AM206	6/TRC (MR	(C-80)			
TRANSMITTER #1	EX	PECTED	А	CTUAL	
I. INPUT POWER	Minimum	50 watts	72		watts
2. OUTPUT POWER	Minimum	500 watts	100	0	_watts
3. GAIN	Minimum	10 db	_10	plus	_db
4. REFLECTED POWER	For VSW	R Reference only	85		watts
5. VSWR 30 Ft. Parabolic End Fire Array	Maximun Maximun		1.6	<u> </u>	<u>'</u>
6. LOW POWER ALARM	3 db dow	rn .		3	_db
TRANSMITTER #2	EX	PECTED	A	CTUAL	
I. INPUT POWER	Minimum	50 watts	70	<u>.</u>	watts
2. OUTPUT POWER	Minimum	500 watts	100	0	watts
3. GAIN	Minimum	10 db	10	plus	_db
4. REFLECTED POWER5. VSWR	For VSW Maximum		300	V/A	_watts
6. LOW POWER ALARM	3 db dow	n ,	3		db

FEDERAL ELECTRIC CORPORATION BIG RALLY !! PROJECT DATA SHEET AN/MRC-80 STATION

BR11/22

	STATION_		GHO	
Transmission Path: From Station_	GHO to Station	4	GPA	
Power Amplifier Serial # 1-24	#2-23			
Amplifier Power Supply, AM2066	5/TRC (MRC-80)			
TRANSMITTER #1	EXPECTED		ACTUA	L .
I. INPUT POWER	Minimum 50 watts		55	watts
2. OUTPUT POWER	Minimum 500 watts		915	_watts
3. GAIN	Minimum 10 db		16	_db
4. REFLECTED POWER	For VSWR Reference only	· .	5	watts
5. VSWR 30 Ft. Parabolic End Fire Array	Maximum 1.4 Maximum 1.5		N/A 1.23	
6. LOW POWER ALARM	3 db down	_	3	_db
TRANSMITTER #2	EXPECTED		ACTUA	L
I. INPUT POWER	Minimum 50 watts		55	watts
2. OUTPUT POWER	Minimum 500 watts		1000	watts
3. GAIN	Minimum 10 db		18	_db
4. REFLECTED POWER 5. VSWR	For VSWR Reference only		13	_watts
30 ft. Parabolic End Fire Array	Maximum 1.4 Maximum 1.5		N/A 1.26	
6. LOW POWER ALARM	3 db down		3	db
	DATE	7 3	January	1964
	TESTER	1	12 XI	Him.
1	SUPERVISOR	Cal	vma	Re!

QUALITY ASSURANCE Mean. Sheet I of I GEETA

FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET AN/MRC-80 STATION

		STATION_	TKG	
Transmission Path: From Station	TKG	to Station	TCO	
Power Amplifier Serial # (1) 23	w 26			
Amplifier Power Supply, AM206	6/TRC (MR	C-80)		
TRANSMITTER #I	EXP	ECTED	ACTUA	AL.
I. INPUT POWER	Minimum	50 watts	58	watts
2. OUTPUT POWER	Minimum	500 watts	875	watts
3. GAIN	Minimum	10 db	11.8	_db
4. REFLECTED POWER	For VSWR	Reference only	15.0	watts
5. VSWR 30 Ft. Parabolic End Fire Array	Maximum Maximum		1.30 N/A	
6. LOW POWER ALARM	3 db dowr	1	3.0	_db
TRANSMITTER #2	EXP	ECTED	ACTUA	L
I. INPUT POWER	Minimum	50 watts	57 .	watts
2. OUTPUT POWER	Minimum	500 watts	900	watts
3. GAIN	Minimum		11.98	- db
4. REFLECTED POWER	For VSWR	Reference only	8.0	watts
5. VSWR 30 ft. Parabolic End Fire Array	Maximum Maximum	1.5	1.21 N/A	
6. LOW POWER ALARM	3 db down		3.0	_db

BRII/22

FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET AN/MRC-80 STATION

		STATION	TCO	
Transmission Path: From Stati	onTCO	to Station	TKG	
Power Amplifier Serial #	9			
Amplifier Power Supply, AM2	2066/TRC (MR	C-80)		
TRANSMITTER #1	EXP	ECTED	ACTU	JAL
I. INPUT POWER	Minimum	50 watts	70	watts
2. OUTPUT POWER	Minimum	500 watts	800	watts
3. GAIN	Minimum	10 db	11	db
4. REFLECTED POWER	For VSWR	Reference only	3.5	watts
5. VSWR 30 Ft. Parabolic End Fire Array	Maximum Maximum		1.22 N/A	
6. LOW POWER ALARM	3 db dowr	1	_=3	db
TRANSMITTER #2	EXP	ECTED	ACTL	JAL
I. INPUT POWER	Minimum	50 watts	54.	watts
2. OUTPUT POWER	Minimum	500 watts	800	watts
3. GAIN	Minimum	10 db :	12	db
4. REFLECTED POWER 5. VSWR	For VSWR	Reference only	2	watts
30 ft. Parabolic End Fire Array	Maximum Maximum		7.22 N/A	
6. LOW POWER ALARM	3 db dowr		3	6.5
		DATE_ TESTER_	20 DEC.	1963
1		SUPERVISOR	V. fros	taa
1,	QUAL	ITY ASSURANCE	MAKE	Un this

Sheet | of |

FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET AN/MRC-80 STATION

		STATION	TKG	
Transmission Path: From Station	TKG	to Station_	TES	
Power Amplifier Serial # (1)	32 #(2) 31			
Amplifier Power Supply, AM206	6/TRC (MRC-	80)		
TRANSMITTER #1	EXPEC	TED	ACTU	AL.
I. INPUT POWER	Minimum 50	watts	56	watts
2. OUTPUT POWER	Minimum 50	0 watts	770	watts
3. GAIN	Minimum 10	db	13.8	db
4. REFLECTED POWER	For VSWR R	eference only	13.0	watts
5. VSWR 30 Ft. Parabolic End Fire Array	Maximum I.		1.28 N/A	
6. LOW POWER ALARM	3 db down		3.0	db
TRANSMITTER #2	EXPEC	TED	ACTUA	\L
I. INPUT POWER	Minimum 50	watts	56	watts
2. OUTPUT POWER	Minimum 50	0 watts	770	watts
3. GAIN	Minimum 10		13.8	db
4. REFLECTED POWER	For VSWR Re	eference only	9•5	watts
5. VSWR 30 ft. Parabolic End Fire Array	Maximum I.		1.25 N/A	
6. LOW POWER ALARM	3 db down		3.0	db

DATE 15 DECEMBER 1963
TESTER March of Blands
SUPERVISOR What Provided

QUALITY ASSURANCE

Sheet I of I

DATE 15 December 1963

TESTER MIL.

SUPERVISOR

Sheet I of GEETA POL

		STATION_	Tes	- 10 d
Transmission Path: From Stati	on TES	to Station T	KG	
Power Amplifier Serial # #1	34 #2 33	_		
Amplifier Power Supply, AM	2066/TRC (M	RC-80)		
TRANSMITTER #1 H	EX	PECTED	ACTU	AL
I. INPUT POWER	Minimur	m 50 watts	60	watts
2. OUTPUT POWER	Minimur	m 500 watts	800	watts
3. GAIN	Minimur	m 10 db	11.8	db
4. REFLECTED POWER	For VSW	R Reference only	8	watts
5. VSWR 30 Ft. Parabolic End Fire Array	Maximul Maximul		1.17 N/A	
6. LOW POWER ALARM	3 db dov	vn	3	db
TRANSMITTER #2	. EX	(PECTED	ACTU	AL
I. INPUT POWER	Minimun	n 50 watts	60 .	watts
2. OUTPUT POWER	Minimun	n 500 watts	800	watts
3. GAIN	Minimun	n 10 db .	11.8	db
4. REFLECTED POWER	For VSW	R Reference only	2	watts
5. VSWR 30 ft. Parabolic End Fire Array	Maximur	m 1.5	1.18 N/A	
6. LOW POWER ALARM	3 db dov	vn .	3	db

FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET AN/MRC-80 STATION

BRII/23

			ST	TATION_	G P A
Transmission Path:	From Station	GPA	_To Station _	GHO	
Receiver Serial #_	4299 & 4434				
Receiver, R-417/TR	C with Selector	SA-607/TRC (M	IRC-80)		
		EXPECTED		AC	CTUAL
I COMBING	ACTION				
Output,	Channel I	50mv <u>/</u> 0.5 d	Ь	_	50 117 mv
Output,	Channel 2	50mv <u>≠</u> 0.5 d	db	-	50 40 mv
	d output, nels 1 & 2	50mv ≠ 3 db - 0		tak	ding not en mv
2. QUIETING	SENSITIVITY				
Input lev	el Rec #1	Maximum 3u	v		2.6 uv
Input lev	el Rec #2	Maximum 3u	v		2.9 uv
,			RE	C#1	REC #2
3. BANDWIDT	H				
Lower lin	nit		2 <u>75</u>	KC_KC	320 KC
Upper lin	nit		280	_KC	230 KC
Bandwidt	h	540KC <u>/</u> 25K	C 5 <u>55</u>	_KC	550 KC
4. VSWR					_
30 Ft. Pc	rabolic	Maximum I.	4 <u>N</u>	1/A	MA
End Fire	Array	Maximum 1.	<u>1.</u>	4	1.4
				DATE 7	TANTIARY 1061.

TESTER SUPERVISOR

GEEIA

QUALITY ASSURANCE

SITE GPA(GHO)

Ref: DD/250 item #2

1. Combining Action

A. Output channel 1	50mv = 0.5db	50mv.
B. Output channel 2	11 11	50mv.
C. Combined output channel 1&2	50mv +x 3db - 0db	50mv.

MC:mc

BRIL/23

			STATION	GHO	_
Transi	mission Path: From Station	GHO To	Station	GPA	_
Recei	ver Serial # 1-4251 #2-42	56			
Recei	ver, R-417/TRC with Selector	SA-607/TRC (MRC-	80)		
		EXPECTED		ACTUAL	
ı.	. COMBING ACTION				
	Output, Channel I	50mv <u>/</u> 0.5 db		50 mv	
	Output, Channel 2	50mv <u>≠</u> 0.5 db		50 mv	
	Combined output, Channels I & 2	50mv / 3 db		50 mv	
2.	QUIETING SENSITIVITY				
	Input level Rec #1	Maximum 3uv		3 uv	
	Input level Rec #2	Maximum 3uv		*3.85uv	
			REC #I	REC #2	
3.	BANDWIDTH				
	Lower limit		69.2299M&C 36	69.2339KGMC	,
	Upper limit		69.7706× KC 36	69.7707KQMC	
	Bandwidth	540KC <u>/</u> 25KC	51:0 KC	546.8KC	
4.	VSWR				
	· 30 Ft. Parabolic	Maximum 1.4	N/A	N/A	
	End Fire Array	Maximum 1.5	1.14	1.10	
λk	Quieting Sensitivity of specifications.		DATE TESTER SUPERVISOR ITY ASSURANCE	7 January 190 Au X Yang 1 Tawman Care	
				M . a . II'	1-6

		STATION	TKG
Transmission Path: From Station	TKG	To Station	TCO
Receiver Serial # (1) 4286 (2) 4397		
Receiver, R-417/TRC with Selector	SA-607/TRC (MR	(C-80)	di.
	EXPECTED		ACTUAL
I. COMBING ACTION			
Output, Channel I	50mv <u>/</u> 0.5 db	ANY 51.0	<u>*27.0</u> mv
Output, Channel 2	50mv / 0.5 db		
Combined output, Channels 1 & 2		60 515 0= 1.88.C	
2. QUIETING SENSITIVITY			
Input level Rec #1	Maximum 3uv		1.20 uv
Input level Rec #2	Maximum 3uv		2.60 UV
		REC #I	REC #2
3. BANDWIDTH			
Lower limit		471 KC	446_KC
Upper limit		859KC	902 KC
Bandwidth	540KC <u>/</u> 25KC	₩388 ₩ <u>388</u> KC	*456 KC
4. VSWR			
· 30 Ft. Parabolic	Maximum 1.4	1.16	1.13
End Fire Array	Maximum 1.5	N/A	N/A
* OUT OF SPEC.		DATE	10 December 1
	QUA	LITY ASSURANCE	ourt Mallie

FEDERAL ELECTRIC CORPORATION " BIG RALLY II PROJECT DATA SHEET AN/MRC-80 STATION

		STATION	Y TCO
Transmission Path: From Station	Teo ·	To Station	TKG
Receiver Serial # #1, 3991	#2, 3,223		
Receiver, R-417/TRC with Selector	or SA-607/TRC (A	ARC-80)	
	EXPECTED		ACTUAL
I COMBING ACTION			
Output, Channel I	50mv <u>/</u> 0.5	db	50 mv
Output, Channel 2	50mv <u>/</u> 0.5	db	50 mv
Combined output, Channels I & 2	50mv ≠ 3 db - 0	,	50 mv
2. QUIETING SENSITIVITY			
Input level Rec #1	Maximum 3u	ı v	2.8 uv
Input level Rec #2	Maximum 3u	I V	2.7 uv
		REC #I	REC #2
3. BANDWIDTH			
Lower limit		286 KC	28 <u>9</u> KC
Upper limit		254 KC	271 KC
Bandwidth	540KC <u>/</u> 25k	кс <u>540</u> кс	56 <u>0</u> KC
4. VSWR			
30 Ft. Parabolic	Maximum I.	4 1.22	1.19
End Fire Array	Maximum I.	5 N/A	N/A
		DATE TESTER SUPERVISOR	The Guller

QUALITY ASSURANCE

			mana
ransmission Path: From Station	TKG To	Station	TES
Receiver Serial # (1) 4429 #(2)_277		
Receiver, R-417/TRC with Selector	SA-607/TRC (MRC-	80)	
	EXPECTED		ACTUAL
COMBING ACTION			
Output, Channel I	50mv <u>/</u> 0.5 db		* mv <
Output, Channel 2	50mv <u>/</u> 0.5 db		* mv
Combined output, Channels I & 2	50mv / 3 db - 0		* mv
QUIETING SENSITIVITY		سو ال	3.0 UV
Input level Rec #1	Maximum 3uv	jm/29 x	3.0 uv
Input level Rec #2	Maximum 3uv		3/0 uv
	in i	REC #1	REC #2
BANDWIDTH			
Lower limit		- <u>247</u> KC	_290 KC
Upper limit		210 KC	+120 KC
Bandwidth	540KC <u>/</u> 25KC 52	23.7 2457 KC	* 410 KC
4. VSWR			Ľ.
· 30 Ft. Parabolic	Maximum 1.4	1.26	1.11
End Fire Array	Maximum 1.5	N/A	N/A
* OUT OF SPEC.		DATE	15 December
		TESTER	David 12

			STATION	TES
Transm	nission Path: From Station _	TES To S	Station TKG	
Receiv	ver Serial #1_ 4408 #2- 90	67_		
Receiv	ver, R-417/TRC with Selector	F SA-607/TRC (MRC-6	30)	
		EXPECTED		ACTUAL
ļ	COMBING ACTION			
	Output, Channel I	50mv <u>/</u> 0.5 db		<u>50</u> mv
	Output, Channel 2	50mv <u>/</u> 0.5 db		50 mv
	Combined output, Channels I & 2	50mv ≠ 3 db - 0		50 mv
2.	QUIETING SENSITIVITY			
	Input level Rec #1	Maximum 3uv		2.5 UV
	Input level Rec #2	Maximum 3uv		2.75 UV
			REC #I	REC #2
3.	BANDWIDTH	•		
	Lower limit		2 <u>68</u> KC	_ ₂₇₈ KC
	Upper limit		266 KC	285KC
	Bandwidth	540KC <u>/</u> 25KC	53/L KC	563_KC
4.	VSWR			
	: 30 Ft. Parabolic	Maximum 1.4	1.06	1.04
	End Fire Array	Maximum 1.5	NA	NA
	. :	QUALIT	DATE TESTER SUPERVISOR Y ASSURANCE	

FEDERAL ELECTRIC CORPORATION

BRII/24 Rev. 1 October 1963

BIG RALLY II. PROJECT

DATA SHEET

AN/MRC-80 LINK TESTS

	STA	TION G F	A .	
Transmission Path: From GPA to	GHO			
I. DEVIATION	SYS	#1	SYS	#2
A. MTR CAL, TX	A.A.	_Int.	A.A.	Int.
. B. IKC ADJ, TX	A.A.	Int.	A.A.	Int.
C. MOD ADJ, TX	A.A.	Int.	AAA	Int.
D. MOD 1KC IN, TX	A.A.	Int.	Ä.A.	Int.
2. BASEBAND FREQUENCY RESPONSE REQUIREMENT: Within ± 1db of 32KC Reference Frequency (See NOTE)				
8 KC	5_	_dbm	_=,3_	dbm
16 KC	-4	_dbm	-,1	dbm
24 KC	3	_dbm ·	1	dbm
32 KC (Reference)	0	_dbm	0	dbm
40 KC	0	dbm ·	2	dbm
48 KC	1.	dbm	1	dbm
56 KC	0	dbm	,1	dbm
68 KC	4	_dbm .	6	dbm
90 KC Regrd.: 35db below 32KC Reference	- 1;8	dbm	-49.5	dbm

NOTE: Due to the nature of tropospheric scatter, this requirement may be exceeded for short term variations.

MODE PEAKS AND	SPURIOUS TONES		
Freq. 1KC		NOISE LEVE	CL
		SYS #1	SYS #2
		dòm	dìb
	NO TONES GREATER THAN -55 dbm WERE NOTED	dbm	db
	-)) dom while holds	dbm	db
		dbm	db
		dbm	db
NOTE:	Record all noise peaks or	tones greater than -550	dbm.
NOTE:	Record all noise peaks or	tones greater than -550	dbm.
NOTE:	Record all noise peaks or	tones greater than -550	dbm.
NOTE:	Record all noise peaks or	tones greater than -55c	dbm.
NOTE:	Record all noise peaks or	tones greater than -550	dbm.
NOTE:	Record all noise peaks or	tones greater than -550	dbm.
NOTE:	Record all noise peaks or	tones greater than -550	dbm.
NOTE:	Record all noise peaks or		dbm.

SUPERVISOR

QUALITY ASSURANCE

FEDERAL ELECTRIC CORPORATION

BRII/24 Rev. 1 October 1963

BIG RALLY II. PROJECT

DATA SHEET

AN/MRC-80 LINK TESTS

	STATION	: GHO
Transmission Path: From GPA to	GHO	
1. DEVIATION	SYS #1	SYS #2
A. MTR CAL, TX	RSK Int.	RSK Int.
. B. IKC ADJ, TX	RSK Int.	RSK Int.
C. MOD ADJ, TX	RSK Int.	RSK Int.
D. MOD 1KC IN, TX	RSK Int.	RSK Int.
2. BASEBAND FREQUENCY RESPONSE REQUIREMENT: Within ± 1db of 32KC Reference Frequency (See NOTE)		
8 KC	5 dbm	7 dbm
16 KC	25 dbm	5 dbm
24 KC	25 dbm	dbm
32 KC (Reference)	25 dbm	4 dbm
40 KC	25 dbm	=,3 dbm
48 KC	G 10 dbm	= 2 dbm
56 KC	:20 dbm	2 dbm
68 KC	5_r dbm	7 dbm
90 KC Regrd.: 35db below 32KC Reference NOTE: Due to the nature of tropospheric	_30_5 dbm	<u>-44</u> dbm

NOTE: Due to the nature of tropospheric scatter, this requirement may be exceeded for short term variations.

8. N	OISE	PEAKS	AND	SPURIOUS	TONES
------	------	-------	-----	----------	-------

Freq. 1KC

NOISE LEVEL

	SYS #1	SYS #2
	dbm	dbm
Note: No noise above -65dbm -	dbm	dbm
	dbm	dbm
	dbm	dbm
	dbm	dbm

NOTE: Record all noise peaks or tones greater than -55dbm.

DATE 7 January 1964
TESTER My X Hr
SUPERVISOR Journalle
QUALITY ASSURANCE (1) Carofo
CEPIA A A A O K

FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET AN/MRC-80 LINK TESTS

BRII/24 REV 1 October 1963

4-7						ລາ	LATITON	TKG
Ţr	ansmissi	on Path:	From	TKG	to	TCO	A STATE OF THE STA	
1.	DEVIATI	ON				SYS	#1	SYS #2
-	B. 1KC C. MOD	CAL, TX ADJ, TX ADJ, TX LKC IN, T	X			- 1: - f	Int. Int. Int.	Aß Int. Int. Int. Int. Int. Int. Int.
2.	REQUIRE	D FREQUEN MENT: Wit ce Freque TE)	hin <u>+</u> 1		ΚC			
	40 KC 48 KC 56 KC 68 KC 90 KC R	Reference egrd.: 35 eference E: Due to requir variat	db belo			-1.2 -0.8 -0.4 -0.1 +0.3 +0.4 -52		
3.	NOISE P	EAKS AND	SPURIOU	S TONES				
	Freq. 1	KC			,			LEVEL
	N/A N/A N/A N/A	found	greater	ned, no le than -55	dbm.	N/A N/A	dbm dbm dbm dbm dbm	N/A dbm
						_		

SUPERVISOR AND A SUPERVISOR OF
FEDERAL ELECTRIC CORPORATION

BRII/24 Rev. 1 October 1963

BIG RALLY II PROJECT

DATA SHEET

AN/MRC-80 LINK TESTS

			STA	TION_	TCO	
Tr	ansmission Path: From TCO to	o	TKG			
1,	DEVIATION		SYS	#1	SYS	S #2
	A. MTR CAL, TX		RE RE	Int.	REHE	Int.
	B. 1KC ADJ, TX		RE RE	_Int.	RERE	Int.
	C. MOD ADJ, TX		RE RE	Int.	PERE	_Int.
	D. MOD 1KC IN, TX		RERR	_Int.	RENE	Int.
2.	BASEBAND FREQUENCY RESPONSE REQUIREMENT: Within † 1db of 32KC Reference Frequency (See NOTE)					
	8 KC		+4.5	dbm	+4	dbm
	16 KC		+407	5 dbm	+4	_dbm
	24 KC		+4.7	5 dbm	+4	dbm
	32 KC (Reference)		+5	dbm	地	_dbm
	40 KC.		+4.5	_dbm	+4	dbm
	48 KC		+4-5	dbm	±4	dbm
	56 KC		+4	_dbm	±3.5	dbm
	68 KC		+4	dbm	+脉	dbm
	90 KC Regrd.: 35db below 32KC Reference		-55	_dbm .	<u>58</u>	dbm

NOTE: Due to the nature of tropospheric scatter, this requirement may be exceeded for short term variations.

NOISE PEAKS AND SPURIOUS TONES

Freq. 1KC

NOISE LEVEL

	SYS #1	SYS #2
NONE	NONE dbm	NONE dpm
NONE	NONE dbm	NONE com
NONE .	NONE dbm	NONE dbm
-NONE-	NONE dbm	NONE dbm
		NONE dbm

NOTE: Record all noise peaks or tones greater than -55dbm.

TESTER (Shames Supervisor Supervisor Supervisor Supervisor Surance Surance Supervisor GEEIA Rolphel Surger

FERERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET AN/MRC-80 LINK TESTS

BRII/24 REV. 1 OCTOBER 1963

	STATION_	TKG
Transmission Path: From TKG to	аят	
1. DEVIATION A. MTR GAL, TK B. 1KC ADJ, TX C. MOD ADJ, TX D. MOD 1KC IN, TX	SYS #1 /// Int. /// Int. /// Int.	SYS.#2 // Int. 6// Int. /// Int. _/// Int.
2. BASEBAND FREQUENCY RESPONSE REQUIREMENT: Within +1db of 32KC Reference Frequency (See NOTE)		
8 KC 16 KC 24 KC 32 KC (Rerference) 40 KC 48 KC 56 KC 68 KC 90 KC Regrd: 35db below 32KC Reference	-9.7 dbm -9.8 dbm -9.8 Dbm -9.5 dbm -9.5 dbm -9.8 dbm -9.8 dbm -9.8 dbm -9.8 dbm -1.8 dbm -1.8 dbm -1.8 dbm -1.8 dbm	-9.2dbm -9.1dbm -9.2dbm -9.3dbm -9.3dbm -9.4dbm -9.4dbm -50.0bm
NOTE: Due to the nature of tropospherequirement may be exceeded for		
3. NOISE PEAKS AND SPURIOUS TONES Freq. 1 KC N/A N/A N/A Baseband scanned, no levels found greater than -55dbm. N/A N/A N/A N/A N/A N/A N/A N/	SYS #1 N/A N/A N/A N/A N/A	SYS #2 N/A N/A N/A N/A N/A N/A
TEST	15 December	

QUALITY ASSURANCE

GEELA Serals 4 Not

FEDERAL ELECTRIC CORPORATION

HIG RALLY II PROJECT

BRII/24 Revised L Oct. 1963

DATA SHEET AN/MRC-80 LINK TESTS

			STATION TES
Tr	ansmission Path: From TES	To TKG	
1.	DEVIATION	SYS #1	SYS #2
	A. MTR CAL, TX	MB Int	MB Int
	B. 1KC ADJ, TX	MB Int	MB Int
	C. MOD ADJ, TX	MB Int	MB Int
	D. MOD 1KC IN, TX	MB Int	MB Int
2.	BASEBAND FREQUENCY RESPONSE Requirement: Within + 1db of 32KC Reference frequency (See note)		
	8 KC 16KC 24KC 32KC 40KC 56KC	-10.5dbm -10.5dbm -10.5dbm -10.5dbm -10.5dbm -10.5dbm -10.0dbm	-10.0 dbm -10.0 dbm -9.5 dbm -10.5 dbm -10.5 dbm -10.5 dbm -10.5 dbm
	90KC Required: 35db below 32KC reference	-61.5 dbm	-61.0 dom

NOTE: Due to the nature of tropospheric scatter, this requirement may be exceeded for short term variations.

SHEET 1 of 2

3. NOISE PEAKS AND SPURIOUS TONES

FREQUENCY				NOISE LEV	EL
			sys #1	¥ 1	SYS #2
	NO TONES OR NOTS	SE ABOVE -	dbm	The same of the sa	dbm
	-60 dbm.		dbm	1	dbm
		_	dbm		dbm
		_	dbm		dbm
NO	TE: Record all	noise peaks o	r tones g	reater tha	in - 55 dbm.

DATE 15 Dec 1963

TESTER MI. Bush

SUPERVISOR RC Millick

QUALITY ASSURANCE Ster Parlell

GEETA Rolph S. Huger

Sheet 2 of 2

FEDERAL ELECTRIC CORPORATION

BIG RALLY II PROJECT

DATA SHEET

AN/MRC-85 STATION TEST

STATION TIT Transmission Path: From Station TID to Station GP Exciter Serial No. ____037 Frequency 392,5 AN/MRC-85 EXCITER, RADIO EXPECTED ACTUAL POWER OUTPUT . 10 Power Output Minimum 9 Watts 2. CARRIER FREQUENCY Frequency · . . .001% of assigned 302.5 MC EXCITER RESPONSE AND DEVIATION 391.705 MG Lower 1 db point 393.295 MC Upper 1 db point Bandwidth Minimum 1.5 MC Rec 073 1.60 074 High Frequency Deviation -19db + 0.5db -19.0 -10.0 db J-14 on S1893 Low Frequency Deviation 14 mv. + 1 mv +13.6 +13.5 mv J2 on S1892 ORDER WIRE DEVIATION & GAIN -19.5dbm+0.5dbm -19.5 -19.5 dbm -10.5dbm+0.5dbm -10.5 -10.5 dbm Oscillator Output Output Level 5. PILOT TONE LEVEL AND DEVIATION 21.5 volts -19.9 -20.0 dbm Radio Pilot Level 20 to 35 volts
Deviation at J14 on S1893 -20dbmt0.5dbm 6. DUAL MODULATOR OPERATION Exciter No. 1 Driving Initials Exciter No. 2 Driving Initials DATE 21 NOVEMBER 1963 TESTER Marlin Leiphart QUALITY ASSURANCE Standard Sheet 1 of 1

FEDERAL ELECTRIC CORPORATION

BIG RALLY II PROJECT

DATA SHEET

AN/MRC-85 STATION TEST

			STATION	TID	
Transmis	sion Path:	From Station TI	to Station	GPA	
Exciter	Serial No.	038	Frequency	392.5	,
AN/MRC-8	5 EXCITER,	RADIO			
1. POW	ER OUTPUT		EXPECTED		ACTUAL
	Power Outpu	ıt	Minimum 9 Wa	tts	10 watts
2. CAR	RIER FREQUE	NCY			
	Frequency			Igned 392.	4998 MC
3. EXC	ITER RESPON	SE AND DEVIATION			
4. ORD	J-14 on Low Frequen J2 on S1 ER WIRE DEV Oscillator Output Leve	point ncy Deviation \$1893 cy Deviation 892 IATION & GAIN Output 1 EL AND DEVIATION	Minimum 1.5 h -19db ± 0.5db 14 mv. ± 1 m -19.5dbm±0.5d -10.5dbm±0.5d	Rec 075 -19.0 13.0 lbm -19.5	13.4 mv
		t J14 on S1893		-20.0	-20.0dbm
6. DUA	L MODULATOR	OPERATION		:	
	Exciter No.		<u></u>		_ Initials _ Initials
			Ralph S.	BUR 1953. Englast Cill Krieger	

BIG RALLY II PROJECT DATA SHEET AN/MRC-85 STATION TEST

		ion	
Transmission Path: From Station	GPA to Station	TID	
Exciter Serial No. 1 H	Frequency_	360,5	М
MRC-85 AN/ FRC-33 EXCITER, RADIO			
***************************************	EXPECTED	ACTU	JAL
. POWER OUTPUT	9		
Power Output	Minimum 10-watts	9.5	watt
2. CARRIER FREQUENCY			
Frequency	.001% of assigned	360.498,310	MC
3. EXCITER RESPONSE AND DEVIA	TION		
Lower 1 db point		711143	MC
Upper 1 db point		69113 2.03	MC
Bandwidth	Minimum 1.5 MC	2.03	мс
4. HF DEVIATION			
Level at J4	$-14 \text{ dbm} \pm 0.5 \text{ dbm}$	າ <u></u> ກ	4 dbm
5. ADJUSTMENT OF FOUR RECEIVE	ERS	MC	_Initia
6. LF DEVIATION			
Signal level at J14	$-10 \text{ dbm} \pm 0.5 \text{ dbm}$	a <u>-10</u>	_dbm
7. ORDER WIRE DEVIATION & LEVI	EL.		
Output at J26-J27	-10 dbm + 0.5 dbm	n 25 -10	dbm
8. PILOT TONE LEVEL AND DEVIA	TION		
Radio Pilot Level at J51	20 to 35 volts	24	volts
Deviation at J14 on S1893	$-20 \text{ dbm } \pm 0.5 \text{ dbr}$	n	dbm
9. DUAL MODULATOR OPERATION		*	
Exciter No. 1 Driving			_Initia
Exciter No. 2 Driving		*	_Initia
	DAT	-	;
ot operational due to defective K-3	TESTE		4.4
	SUPERVISOR	and the second s	1
	UALITY ASSURANCE Sheet 1 of 1		1

BRII/16

BIG RALLY II PROJECT DATA SHEET AN/MRC-85 STATION TEST

ADDENDUM	Station	GPA
Transmission Path: From Station	GPA to Station	TID
Exciter Serial No. 2 V	Frequency	60.5 MC
AN/ERG-39 EXCITER, RADIO	EXPECTED	ACTUAL
1. POWER OUTPUT	9	
Power Output	Minimum M watts	10 watts
2. CARRIER FREQUENCY Frequency	.001% of assigned	360.498.069 MC
3. EXCITER RESPONSE AND DEVIA	TION	
Lower 1 db point		70789 MC
Upper l db point		69.131 MC
Bandwidth	Minimum 1.5 MC	1.65 MC
4. HF DEVIATION		
Level at J4	-14 dbm + 0.5 dbm	-14 dbm
5. ADJUSTMENT OF FOUR RECEIVE	ERS	MC Initials
6. LF DEVIATION		
Signal level at Jl4	$-10 \text{ dbm} \pm 0.5 \text{ dbm}$	dbm
7. ORDER WIRE DEVIATION & LEVI	CI.	
	-10 dbm + 0.5 dbm	-10 dbm
8. PILOT TONE LEVEL AND DEVIA	TION	
Radio Pilot Level at J51	20 to 35 volts	26 volts
Deviation at J14 on S1893	-20 dbm ± 0.5 dbm	-20 dbm
9. DUAL MODULATOR OPERATION Exciter No. 1 Driving Exciter No. 2 Driving		* Initials Initials
	DATE	11-24-1963
	TESTER	All out
	SUPERVISOR	Successeu.

QUALITY ASSURANCE

* Not operational due to defective T6/

Sheet 1 of 1 Berald a Holmer

BR II/12

			STATION_	GPA	
Transmission Path: From S	Station	GPA	to Station	TID	
1 KW Amplifier Serial	No.	14	_Frequency_	360.5	мс
Exciter Serial No. 1H					
AN/MRC-85 POWER AMPLI	IFIER, I	RADIO .			
		E	XPECTED	ACTUA	L
		1 KW	10 KW		
1. INPUT POWER	Min.	6 watts	6 watts	12	_watts
2. OUTPUT POWER	Min.	1 KW	10 KW	lkW	watts
3. REFLECTED POWER	Max.	28 watts	280 watts	25.6	_watts
4. VSWR	Max.	1. 40	1.40	*_ 1.38	
5. FAULT RECYCLING				MC	_Initial:
6. KLYSTRON COOLANT F	LOW.	Min	. 17 GPM	N/A	_GPM
ansmission line swept. [FOR]	Smir B	AND WITH)	DATE	11-20-1963	
			ervisor	Jueny.	. 1
		QUALITY	ASSURANCE	by. Ca	10/b

		STATION	GPA
Transmission Path: From	Station GPA	to Station_	TID
1 KW Amplifier Serial	No. 2V	Frequency	360.5 MC
Exciter Serial No. 2V			
AN/MRC-85 POWER AMPL	IFIER, RADIO	•	
		EXPECTED	ACTUAL
	1 K	W 10 KW	
1. INPUT POWER	Min. 6 watt	s 6 watts	10_watts
2. OUTPUT POWER	Min. 1 KW	10 KW	1KW watts
3. REFLECTED POWER	Max. 28 was	tts 280 watts	v 0
4. VSWR	Max. 1.40	1.40	* 1.28
5. FAULT RECYCLING			MC Initials
6. KLYSTRON COOLANT F	rom ,	Min. 17 GPM	N/A GPM
Transmission line swept. (FOR	1-5mc PART WIT	DATE_	11-20-1963
		TESTER	La spira
	su	PERVISOR	Sweeny.
	QUALI'	ry assurance	: lle Carot
		GREIA	Berald al Maline

FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET AN/MRC-85 STATION TEST

		STATION TID		
Transmission Path: From S	tation TID	to Station GPA		
1 KW Amplifier Serial N	lo. 013	_Frequency_39	2.5 MC	
Exciter Serial No. 038				
AN/MRC-85 POWER AMPLI	FIER, RADIO			
	E.	XPECTED	ACTUAL	
	1 KW	10 KW		
1. INPUT POWER	Min. 6 watts	6 watts	_6watts	
2. OUTPUT POWER	Min. 1 KW	10 KW	1,000 watts	
3. REFLECTED POWER	Max. 28 watts	280 watts	watts	
4. VSWR	Max. 1.40	1.40	19 16	
5. FAULT RECYCLING			ML Initial	
6. KLYSTRON COOLANT FL	ow Min	. 17 GPM	N/A GPM	

DATE 22 NOVEMBER 1963

TESTER Mask

SUPERVISOR

QUALITY ASSURANCE Markandell

GEETA Ralph S. Briges

FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET AN/MRC-85 STATION TEST

			STATION	CID	
Transmission Path: From St	tation_	ŤD	to Station_	GPX	
1 KW Amplifier Serial N	To. 014		Frequency	392.5	MC
Exciter Serial No. 037					
AN/MRC-85 POWER AMPLIE	FIER, F	RADIO .			
		EX	(PECTED	ACTUA	L
		1 KW	10 KW		
1. INPUT POWER	Min.	6 watts	6 watts	5.0	watts
2. OUTPUT POWER	Min.	1 KW	10 KW	1,000	watts
3. REFLECTED POWER	Мах.	28 watts	280 watts	15	_watts
4. VSWR	Max.	:1.40	1. 40	1.26	_
5. FAULT RECYCLING				M	_Initials
6. KLYSTRON COOLANT FL	OW.	Min.	17 GPM	. II/A	_GPM

	DATE	21	107.131	BLR L	953	
	TESTER	7	narlis	Lin	har	X
SUPE	RVISOR	//		// '	1	
	ASSURAN					
		1				
	GELTA	talp	hile	their	geri	-

FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET AN/MRC-85 STATION TEST

		STATION	TID	
		A second of the		
Transmission Path: From S	tation TID	to Station_	GPA	
1 KW Amplifier Serial N	To. 023	Frequency	392.5	MC
Exciter Serial No. 037				ma.
AN/MRC-85 POWER AMPLI	FIER, RADIO			
	I	EXPECTED	ACTUA	L
	1 KW	10 KW	•	
1. INPUT POWER	Min. 6 watts	6 watts	6	watts
2. OUTPUT POWER	Min. 1 KW	10 KW	1,000	watts
3. REFLECTED POWER	Max. 28 watt	8 280 watt	s <u>10</u>	watts
4. VSWR	Max. 1.40	1.40	_1.24_	
5. FAULT RECYCLING			мт	Initials
6. KLYSTRON COOLANT F	LOW . W	lin. 17 GPM	N/A	GPM
* Spare klystron carriage.				

DATE 22 NOVEMBER 1963

TESTER Malin Lagrand

SUPERVISOR - White Lagrand

QUALITY ASSURANCE Start Lagrand

GEETA Relabolity Longer

FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET AN/MRC-85 LOCAL STATION TESTS

BR II/13 Rev. 30 September 196

		SIAII	ON GIA		
Transmission Path: Station_	GPA to Stat	lon	TID		
1. Receiver Gain					
RF Amplifier and Converter	Re	2 17	Rec 2 H	Rec 3H	4V Rec_
Required: Minimum 30db		35db .	34db	34db	32db
Parametric Amplifier & Conv	verter				
Required: Minimum 33db		N/A	N/A	N/A	N/A
72. Receiver Sensitivity (20db Qu	ieting Level)			To	
RF Amplifier (4.5db NF)	Red	17	Rec 2H	Rec 3H	Lv Rec_
Required: Maximum 4uv		2,2	2.3 /	2,0	2,6
Parametric Amplifier (2db N	F)				
Required : Maximum 2.5uv		N/A	N/A	N/A	N/A
3. DC Control Voltage					40
DC Control Volts	Rec		Rec 2H	Rec 3H	Rec
Remireds -35 Volta		19 Sept 1995.	The same	2	

	4.	Diversity Combiner	Rec	1V		LV .
	1		Rec	-	Rec	
		Vertical Receiver Outputs (no input)				
		Required: Maximum Difference 2db		+ 0.8	⇔ 0	-5
		Vertical Receiver Outputs (30db quieting-Ref)		-27	2 8	
		Combined (Vert.)				
		Required: 1.5 to 4.5db less than individual receiver		-30	-31	
			Rec	2H .	Rec 3H	
		Horizontal Receiver Outputs (no input)				6 - 4
		Required: Maximum Difference 2db		+1,25	<u>+1,</u>	0 .
		Horizontal Receiver Outputs (30db quieting-Ref)		-29	–3 0	.5
		Combined (Horiz.)				
		Required: 1.5 to 4.5db less than individual receiver		-32.25	-33	•0
	5.	Receiver Pilot Tone Operation Test	MC in	itial		
	6.	Antenna System VSWR				
		Required: Maximum 1.40	VERT		HORIZ.	
	,	Antenna 1	1.05		1.28	
	lor.	Antenna 2	1,22		1,05	
		Date	11-26-19	63		
		Tester	SA	0 310 1 t. 1		
Not	to: All	measurements made with HP 400 VTVM. Superv	isor /	Livees	en.	**
		Quality	Assur	ance	Para	In.
		GEEIA	Be	ill or	Walnu	me.

4. Diversity Combiner	Rec	ħ	Rec	74
Vertical Receiver Outputs (no input)				
Required: Maximum Difference 2db		-26		-27.5
Vertical Receiver Outputs (30db quieting-Ref)		±58.5		-56.5
Combined (Vert.)				1
Required: 1.5 to 4.5db less than individual receiver	_	-60		-58
	Rec_	2H	Rec	3н
Horizontal Receiver Outputs (no input)		-25.5		-25.5
Required: Maximum Difference 2db				-40.0
Horizontal Receiver Outputs (30db quieting-Ref)		- 55		-55.5
Combined (Horiz.)				
Required: 1.5 to 4.5db less than individual receiver		-56.5		-57.5
5. Receiver Pilot Tone Operation Test	MC init	ial		
6. Antenna System VSWR				•
Required: Maximum 1.40	VERT.		HORIZ	
Antenna 1 Antenna 2	1.05		1.05	
Date	26 Nove	ember 196	63	
Tester	11	· min		·
Superv	isor	livenu	10	•
Quality	Assurar	ace M	. Co	1/2

BIG RALLY II PROJECT

DATA SHEET

AN/MRC-85 LOCAL STATION TESTS

BR II/13 Rev. 30 September 190

	STAT	ION TID		
Transmission Path: Station TID	to Station GP.	ă .		bill
1. Receiver Gain				
RF Amplifier and Converter	075 Rec 1-H	073 Rec 2 H	076 Rec 3 V	074 Red/
Required: Minimum 30db	31.8	32	32.2	36.7
Parametric Amplifier & Converter				
Required: Minimum 33db	N/A	N/A	N/A	N/A
2. Receiver Sensitivity (20db Quieting	Level)			
RF Amplifier (4.5db NF)				•
	Rec_	Rec 2	Rec 3	_Rec!
Required: Maximum 4uv	2.5	3.2	3.1	3.5
Parametric Amplifier (2db NF)				
Required: Maximum 2.5uv	N/A	N/A.	N/A	N/A
3. DC Control Voltage				
DC Control Volts	Rec 1	Rec 2	Rec 3	Rec
Required: -35 Volts	-35.0	-35.0	-35.0	- 35
되다는 이용에 열면에 보는데 보는 가능한 일본 장면이 얼마나 얼마나 되는 그는 그는 이번째 살이 말하는 것이 모양이다.	of the second se	region at the second	24	

1.74			The state of the	117		1000	the second second
1.	Diversity Co	mbiner		Rec	.075 1 H	Rec	076 3 V
W.	Vertical Rec	eiver Outputs (no input)				
	Required:	Maximum Difference 20	lb		-31.0		-30.8
	Control of the Contro	eiver Outputs (30db quieting-Ref)			- 59 . 5		-59 5
	Combined (V	ert.)			J		
	Required:	1.5 to 4.5db less than individual receiver			-62.3		-62.0
				Rec	073 2 H	Rec	074
	Horizontal R	eceiver Outputs (no inp	ut)				
V at	Required:	Maximum Difference 2d	lb	W	-30.5 -80xx		-30.5 -39XX
	Horizontal R	eceiver Outputs (30db quieting-Ref)			-60.5		±59.5 -6200
	Combined (H	oriz.)					
	Required:	1.5 to 4.5db less than individual receiver		_	-62.5		-62.0
5.	Receiver Pil	ot Tone Operation Test	ML	ir	nitial .		
	Antenna Syst	em VSWR					
	Required:	Maximum 1.40		VERT		HOR	IZ.
		Antenna 1		_1.22		_1.	22
		Antenna 2	4 1.5	_1_28		_1.	32
1.5			Date		70/	1,1	-
				000	. 0.	0 - 1	
			Tester	7/19	11111	gyaki	ast
			Supervi	7	11112	10	()
			Quality	1		VKAN	RILL_
			GEEIA	Kinla	1. 1 18	PA	2

BIG RALLY II PROJECT DATA SHEET

	AN/MRC	-85 OVERALL T	TEST		
		STA	TION	GPA.	
Transmission Path:	From GPA	_Station to	TID	Station	
Exciter Serial No.	18				7
Receiver Serial No.	Rec. # 1V	, Rec. 13#	2H		
Power Amplifier Ser	rial No. 1H				
1. SYSTEM INTERM	ODULATION	EXPEC	TED	ACTUAL	
	ation Frequency	NPR		ec. A IV R	
Intel module	15 KC	Minimum N	DD USAL	58 dbm =5	
	55 KC	Maximum		57 dbm =5	
	80 KC	Maximum-		54 dbm -5	
2. RADIO BASEBAN	D FREQUENCY	RESPONSE			
		EXPEC		ACTUAL	
	Frequency			Rec. A 1V	
	12 KC				10.7dbm
	20 KC	-2 + 1 db			10. Qbm
	30 KC	with respect			10;2ibm
	40 KC	to 30 KC lev			10;2dbm
	50 KC				10.6dbm
	60 KC		H10	•7 dbm	w. dbm
	70 KC		-9	.8dbm -	9.75dbm
	80 KC	+0.25 db	-9	.9dbm -	9.8 dbm
	90 KC	with respect	-1	0 dbm	10.01bm
	100 KC	to 90 KC lev		0 dbm -	10.ldbm
	110 KC		-1	0.Hbm -1	0.1 dbm
	120 KC		1	0 dbm1	0.25dbm
			DATE 24	November 19	63
		TE		Lanco	
		SUPER		1 11	
			7 7/1	1 Co so	
		QUALITY ASSU		Conaj	
		6	EVIA /	Beralda	Volonia
				-	
				'/-/	15

BRII/14

BRII/14

BIG RALLY II PROJECT

		. A		ATA SHEET C-85 OVERALL	TEST			
				ST	ATION	GPA		
	Transmission Path:	From	GPA	Station to	TID	Sta	ation	
	Exciter Serial No.	2V.						
	Receiver Serial No.	Rec. A	避	, Rec. 34	74			
	Power Amplifier Se	rial No	27	•				3
	1. SYSTEM INTERN	MODULAT	CION	EXPE	CTED	ACT	TUAL	
	Intermodul	ation Fre	quency		_	Rec. Ac	H Rec.	野瓜
1		15	KC	Minimum	-55 dbm		m <u>-60</u>	
		55	KC .	Maximum	-55 dbm		m -52	
		80	KC	Maximum-	-55 dbm	-53 db	m <u>-52</u>	_dbm
	2. RADIO BASEBAN	ID FREQU	JENCY	RESPONSE			,	
				EXPE	CTED	ACT	TAU	
1		Fre	equency			Rec. X	3H Re	c. 39 4V
			KC			-10.7 dbm		
			KC	-2 + 1 db		-10.0 dbm		
			KC	with respe		-10.0 dbm		
			KC	to 30 KC 1	evel	-10.25dbm		_
			KC			-10.6 dbm		_
		60	KC			-11.1 dbm	-10.8	_abm
		70	KC			-10.2 dbm	-10.2	dbm
			KC	+0.25 db		-10.1 dbm	-10.1	dbm
			KC	with respe	ct	-10.0 dbm	-10.0	dbm
		100	KC	to 90 KC l	evel	-9.9 dbm	-9.8	dbm
		110	KC			-9.8 dbm		_dbm
1		120	KC			-9.8 dbm	-9.75	_dbm
					DATE	2h Novem	ber 1963	
					TESTER .	K. dispera	1	
				SUPE	RVISOR		16.	
				QUALITY ASS	SURANCE	M.C.	R.1	
				G	EEIA	Berald	and	2
	* 100			ta the bullets and		1	1.	-

ORATION BRII/14

FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET AN/MRC-85 OVERALL TEST

	STATION	ID
Transmission Path: From [II]	Station to GPA	Station
Exciter Serial No. 037		
Receiver Serial No. Rec. A# 'O'	73 H . Rec. B# 074 V	_
Power Amplifier Serial No. 014		
	•	
1. SYSTEM INTERMODULATION	EXPECTED	ACTUAL
Intermodulation Frequen	cy NPP	Rec. A Rec. B
15 KC	Minimum NPR 45db	51 dbm 51 dbm
55 KC	Maximum - 55 dbm	51 dbm 50 dbm
80 KC	Maximum 55 dbm	51 dbm 51 dbm
2. RADIO BASEBAND FREQUENC	CY RESPONSE	
	EXPECTED	ACTUAL
Frequen	ncy	Rec. A Rec. B
12 KC		1.1 dbm -11.2 dbm
20 KC	-2 + 1 db -1	0.2 dbm -10.5 dbm
30 KC		.8 dbm -10.0 dbm
40 KC		.4 dbm -9.6 dbm
50 KC	and the state of t	.1 dbm -9.2 dbm
60 KC	<u>-9</u>	.0 dbm <u>-9.0</u> dbm
		2 2
70 KC		10.0dbm -10.0 dbm
80 KC		10.0dbm -10.0 dbm
90 KC		10.0dbm -10.0 dbm
100 KC		10.0dbm -10.0 dbm
110 KC		10.0dbm -10.0dbm
120 KC		10.0dbm -10.0 dbm
	DATE 2	1 NOVERED 1963
	TESTER AV	Polin La Lock
	SUPERVISOR	000
	QUALITY ASSURANCE	workendell
	GEETA R	lph S. Hanger

FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT

BIG RALLY II PROJECT DATA SHEET

AN/MRC-85	5 OVERALL TEST
	STATION TID
	STATION
Transmission Path: From TID S	tation to GPA Station
Exciter Serial No. 038	
Receiver Serial No. Rec. A# 1 H 075	_, Rec. B# 3 V 076
Power Amplifier Serial No. 013	
1. SYSTEM INTERMODULATION	EXPECTED ACTUAL NPR
Intermodulation Frequency	Rec A Rec B
15 KC	Minimum NPR 45db dbm 54 dbm
55 KC	Maximum 55 dbm 53 dbm 51 dbm
80 KC	Maximum 55 dbm 51 dbm 50 dbm
	4
2. RADIO BASEBAND FREQUENCY RE	SPONSE
[4] [1] 그는 사람들이 되었다.	EXPECTED ACTUAL
Frequency	Rec. A Rec. B
12 KC	-10.7 dbm -11.0 dbm
20 KC	-2 + 1 db -11.4 dbm -10.2 dbm
30 KC	with respect -10.2 dbm -9.8 dbm
40 KC	to 30 KC level10.0 dbm9.6 dbm
50 KC	-9.9 dbm -9.4 dbm
60 KC	-9.8 dbm -9.2 dbm
70 KC	-10.0 dbm -9.9 dbm
80 KC	+0.25 db -10.0 dbm -10.0 dbm
90 KC	with respect -10.0 dbm -10.0 dbm
100 KG	to 90 KC level -10.0 dbm -10.0 dbm
110 KC	-10.0 dbm -10.0 dbm
120 KC	-10.0 dbm -10.0 dbm
120 10	10.0
	DATE 22 NOVEMBER 1963 /2
	TESTER Mastin Kamphant
	SUPERVISOR / (1/1/1/1/1/1/1/1/1/1/1/1/1/1/1/1/1/1/
	QUALITY ASSURANCE ALL SOLLIE
	GEETA Ralph S. Kruger

BRII/14

BRII/15

FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET AN/MRC-85 LINK TEST

		2		STA	110	``	GPA		- 1
ransmission Path: Fro	om_TD		_Stat	tion to_		GPA	St	ation	n
. Exc. Serial No.		V :	Rec.	Serial 1	No.				
I. Exc. Serial No.	IH	v.	Rec.	Serial !	No.				
KW P.A. No.				Serial 1	_				
1. 1 KW P.A. No.	TH	Н.	Rec.	Serial	No.	3H			
Trans. Ant. No.				7					4
. Trans. Ant. No.	1								¥.
		- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1							39
RADIO NOISE AND SI	PURIOUS	TONE	LEVE	ELS E	XP	ECTE	-		71
RADIO NOISE AND SI	PURIOUS	TONE	LEVE			ECTE:	Fre	q. N	oise Leve
RADIO NOISE AND SI	PURIOUS	TONE	LEVF				Fre	q. N	oise Leve
	PURIOUS	TONE	LEVE				Fre	q. N KC	L oise Leve
	PURIOUS	TONE	LEVE				Fre	q. N KC KC	oise Leve
	PURIOUS		LEVE				Fre	KC KC KC	oise Leve x500x dbn dbn dbn

MEASUREMENTS MARK WITH A GODR	≈ Frequency	EXPECTED ACTUAL	
MTR ACROSS A 25 s.	12 KC	-17,1dbm	
MIN MUNDES	20 KC	-2 +1 dbm -16.9 dbm	
	30 KC	with respect -16.3dbm	
	40 KC	to 30 KC level -16.5dbm	
	50 KC	-16.1 _{dpm}	
	60 KC	-16.1dbm	
	70 KC	-17.0 dbm	
	80 KC	+0.25 dbm -17.0 dbm	
	90 KC	with respect -17:0 dbm	
	100 KC	to 90 KC level -17.1 dbm.	
	110 KC	-17.1 dbm	
	120 KC	-17.2 dbm	

DATE 24 November 1963

TESTER SUPERVISOR SUPERVISOR SUPERVISOR Substitute Color Sheet 1 of 1 GEC 18 Devald a Holm

7-19

BRII/15

FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET AN/MRC-85 LINK TEST

	STATION GPA
Transmission Path: From TID Sta	ation to GPA Station
V. Exc. Serial No. 2V V. Rec.	Serial No. 1V
	Serial No. 4V
V. 1 KW P.A. No. 2V H. Rec.	Serial No.
H. KW P.A. No. H. Rec.	. Serial No.
V. Trans. Ant. No. 2	
H. Trans. Ant. No.	
1. RADIO NOISE AND SPURIOUS TONE LEV	ELS EXPECTED ACTUAL
병원이는 그는 이렇게 되었다. 수 없이 그는 이상, 15대,	Freq. Noise Level
Baseband Noise	-60 dbm KC dbm
[사람이 그리 왕왕이는 그들, 이번 맛을 다하면 되었다. 모양을 달래?	KCdbm
200300	KC dbm
NONE	KC dbm
	KC dbm

NOTE: Record all noise signals greater than -60 dbm, except signal at 60 KC.

2. RADIO BASEBAND FREQUENCY RESPONSE

MEASUREMEUTS MADE	* Frequency 12 KC	EXPECTED ACTUAL -19.3	bm
WITH A GOOSE MIR	20 KC	-2 +1 dbm -18.7d	bm
ACROSS A 75 5- LOAD.	30 KC	with respect -18.4d	bm
	40 KC	to 30 KC level -18,1d	bm
	50 KC	-18.1d	bm
	60 KC	<u>-18.0</u> d	bm
	70 KC	-18,36	bm
	80 KC	+0.25 dbm -18,3d	bm
	90 KC	with respect -18.5d	bm :
	100 KC	to 90 KC level -18.5d	bm
	110 KC	-18,5d	bm
	120 KC	-18.5d	bm

	DATE	24	November	1963
	TESTER	201	1 Versil In	1. 61284N
	SUPERVISOR	De	benig.	
QUAL	TY ASSURANCE	eu.	Cala	5.
		,		10

Sheet 1 of 1 GECIA Serolda Galone

BIG RALLY II PROJECT DATA SHEET

AN/MRC-85 LINK TEST

4			

		STATION TI	
ransmission Path: From_	TID St	ation to GPA	Station
. Exc. Serial No. 2 Serial No.	r. 037 V. Rec.	. Serial No. 4 Sea	c. 074
. Exc. Serial No. 1 Ser	r. 038 V. Rec.	Serial No. 3 Ser	c. 076
. 1 KW P.A. No. 2 S			
1 KW P.A. No. 1 S	er. 013 H. Rec	. Serial No. 1 Ser	c. 073
. Trans. Ant. No. 2 . Trans. Ant. No. 1			
RADIO NOISE AND SPUR	RIOUS TONE LEV	ELS EXPECTED	ACTUAL
			Freq. Noise Leve
Baseband Noise		-60 dbm	KCdbr
NO READINGS NOTED AB	OVE -30 dbm on	VERTICAL	KC dbr
RECEIVERS.	4 0		KC dbr
			KC dbr
			KCdbr
RADIO BASEBAND FREG	QUENCY RESPON	NSE	
RADIO BASEBAND FREC	-1 : - 1		ACTUAL
RADIO BASEBAND FREG	QUENCY RESPON Frequency 12 KC	NSE EXPECTED	
RADIO BASEBAND FREC	Frequency		VERTICAL DOVA
RADIO BASEBAND FREC	Frequency 12 KC	EXPECTE	VERTION 10 10 10 10 10 10 10 10 10 10 10 10 10
RADIO BASEBAND FREC	Frequency 12 KC 20 KC	EXPECTED -2 +1 dbm	vertical no 14 b -10.5db t -10.4db
RADIO BASEBAND FREC	Frequency 12 KC 20 KC 30 KC	EXPECTED -2 +1 dbm with respec	vention not a find the second of the second
RADIO BASEBAND FREC	Frequency 12 KC 20 KC 30 KC 40 KC	EXPECTED -2 +1 dbm with respec	vention not a find the second of the second
RADIO BASEBAND FREC	Frequency 12 KC 20 KC 30 KC 40 KC	EXPECTED -2 +1 dbm with respec	vertical no 1/4 by -10.5db; t -10.5db; -10.5db; -10.6db; -10.7db;
RADIO BASEBAND FREC	Frequency 12 KC 20 KC 30 KC 40 KC 50 KC 60 KC	EXPECTED -2 +1 dbm with respec	vertical no -1/46 -10.5db; t -10.5db; -10.5db; -10.6db; -10.7db; -0.9 db;
RADIO BASEBAND FREC	Frequency 12 KC 20 KC 30 KC 40 KC 50 KC 60 KC	-2 +1 dbm with respect to 30 KC left +0.25 dbm with respect	vertical no 14 by 15 by 15 by 16 by
RADIO BASEBAND FREC	Frequency 12 KC 20 KC 30 KC 40 KC 50 KC 60 KC 70 KC 80 KC 90 KC	-2 +1 dbm with respect to 30 KC le	vertical not a find the second of the second
RADIO BASEBAND FREC	Frequency 12 KC 20 KC 30 KC 40 KC 50 KC 60 KC 70 KC 80 KC 90 KC 100 KC	-2 +1 dbm with respect to 30 KC left +0.25 dbm with respect	ventical no vel -10.5dbi -10.6dbi -10.7dbi -10.7dbi -10.0dbi t -10.0dbi t -10.0dbi -10.0dbi
RADIO BASEBAND FREC	Frequency 12 KC 20 KC 30 KC 40 KC 50 KC 60 KC 70 KC 80 KC 90 KC	-2 +1 dbm with respect to 30 KC left +0.25 dbm with respect	vertical no 1/469 -10.5dbi -10.6dbi -10.7dbi -0.9 dbi -0.9 dbi t -10.0dbi t -10.0dbi
RADIO BASEBAND FREC	Frequency 12 KC 20 KC 30 KC 40 KC 50 KC 60 KC 70 KC 80 KC 90 KC 100 KC	-2 +1 dbm with respect to 30 KC le +0.25 dbm with respect to 90 KC le	ventical no vel -10.5dbi -10.6dbi -10.7dbi -10.7dbi -10.0dbi t -10.0dbi t -10.0dbi -10.0dbi
RADIO BASEBAND FREC	Frequency 12 KC 20 KC 30 KC 40 KC 50 KC 60 KC 70 KC 80 KC 90 KC 100 KC	-2 +1 dbm with respect to 30 KC left +0.25 dbm with respect to 90 KC left	vention no 1400 -10.5dbi -10.6dbi -10.7dbi -10.7dbi -0.9 dbi -0.9 dbi -10.0dbi t -10.0dbi t -10.0dbi
RADIO BASEBAND FREC	Frequency 12 KC 20 KC 30 KC 40 KC 50 KC 60 KC 70 KC 80 KC 90 KC 100 KC	-2 +1 dbm with respect to 30 KC left + 0. 25 dbm with respect to 90 KC left DATE TESTER	vention no 1400 -10.5dbi -10.6dbi -10.7dbi -10.7dbi -0.9 dbi -0.9 dbi -10.0dbi t -10.0dbi t -10.0dbi
RADIO BASEBAND FREC	Frequency 12 KC 20 KC 30 KC 40 KC 50 KC 60 KC 70 KC 80 KC 90 KC 100 KC 110 KC	-2 +1 dbm with respect to 30 KC left +0.25 dbm with respect to 90 KC left	vertical action of a control of

BRII/15 :

FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET AN/MRC-85 LINK TEST

	STATION_TI	
Transmission Path: From TID	Station to GPA	Station
V. Exc. Serial No. 2 Ser. 037 H. Exc. Serial No. 1 Ser. 038 V. 1 KW P.A. No. 2 Ser. 023 H. 1 KW P.A. No. 1 Ser. 013 V. Trans. Ant. No. 2 H. Trans. Ant. No. 1	V. Rec. Serial No. 3 Serial No. 2 Serial No. 1 No.	er. 076 er. 075
Baseband Noise NO READINGS ABOVE -70 dbm NO HORIZONTAL RECEIVERS. NOTE: Record all noise signals grain at 60 KC.		Freq. Noise Level KC dbm KC dbm KC dbm KC dbm KC dbm

2. RADIO BASEBAND FREQUENCY RESPONSE

Frequency	EXPECTED AC	CUAL,
12 KC	EXPECTED ACT	-11.7 dbm
20 KC	-2 +1 dbm	-10.3 dbm
30 KC	with respect	-10.1 dbm
40 KC	to 30 KC level	-10.2 dbm
50 KC		-10.3 dbm
60 KC		-10.5 dbm
70 KC		-10.4 dbm
80 KC	+0.25 dbm	-10.3 dbm
90 KC	with respect	-10.4 dbm
100 KC	to 90 KC level	-10.3 dbm
110 KC		-10.4 dbm
120 KC		-10.4 dbm
		A P P A STATE OF THE STATE OF T

DATE24 MOVEMBER 1963
TESTER Making Tonkart
SUPERVISOR //////
QUALITY ASSURANCE Stocharde
Sheet 1 of 1 GENTA Ralph S. Houger

BR11/71.

BIG RALLY II PROJECT

DATA SHEET

AN/FRC-39 STATION TEST

		STATION	T.I.D.	
Transmission Path: From Station T.I	.D.	to STATION	T. K.G.	
Exciter Serial No. # 002	Frequency_	895.92		MC
AN/FRC-39 EXCITER, RADIO				
I. POWER OUTPUT	EX	PECTED	ACTUAL	
Power Output	M	inimum 10 watts	15	watts
2. CARRIER FREQUENCY Frequency	.0	01% of assigned	895.920820	_MC
3. EXCITER RESPONSE AND DEVIATION Lower I db point Upper I db point Bandwidth	1	inimum 6.0 MC	890.54 901.6 11.06	MC MC MC
4. HF Deviation Level at J4	_	14dbm + 0.5 dbm	- 13.9	_dbm
5. ADJUSTMENT OF FOUR RECEIVERS			R.S.K.	_Initials
6. LF DEVIATION Signal Level at J14	_	10dbm + 0.5dbm	10	_dbm
7. ORDER WIRE DEVIATION & LEVEL Output at J26-J27	_	10dbm + 0.5dbm	_ 10	_dbm
8. PILOT TONE LEVEL AND DEVIATION Radio Pilot Level J51 Deviation at J14 on \$1893	20) to 35 volts 0 dbm <u>+</u> 0.5 dbm	22 20	volts dbm
9. DUAL MODULATOR OPERATION Exciter No. 1 Driving Exciter No. 2 Driving			R.S.K.	_Initials _Initials
	D. TEST		963. Alex	_

QUALITY ASSURANCE

BR11/71.

BIG RALLY II PROJECT DATA SHEET

AN/FRC-39 STATION TEST

		STATIO	ON_T.T.	j
Transmission Path: From Station	T.T.D.	to STATIC	ON_T.K	.G.
Exciter Serial No. # 001	Frequency	895.92		MC
AN/FRC-39 EXCITER, RADIO				
	EXP	PECTED	ACTUAL	
I. POWER OUTPUT Power Output	Min	nimum 10 watts	12	watts
2. CARRIER FREQUENCY Frequency	.00	1% of assigned	895.915215	MC
3. EXCITER RESPONSE AND DEVIA Lower I db point Upper I db point Bandwidth		nimum 6.0 MC	891 .22 901.72 10.5	MC MC MC
4. HF Deviation Level at J4		14dbm_+ 0.5 dl	bm <u>- 14</u>	dbm
5. ADJUSTMENT OF FOUR RECEIVE	RS		R,S.K.	lnitials
6. LF DEVIATION Signal Level at J14		10dbm_+0.5dbm	n	dbm }
7. ORDER WIRE DEVIATION & LEVE Output at J26-J27		10dbm + 0.5db	m <u>- 10</u>	dbm
8. PILOT TONE LEVEL AND DEVIA Radio Pilot Level J51 Deviation at J14 on S1893	20	to 35 volts) dbm <u>+</u> 0.5 dl	bm	volts dbm
9. DUAL MODULATOR OPERATION Exciter No. 1 Driving Exciter No. 2 Driving	1		R.S.K.	Initials Initials

DATE 3 Dec. 1963
TESTER
SUPERVISOR
GEETA Relab & House

BR11/71

BIG RALLY II PROJECT DATA SHEET

AN/FRC-39 STATION TEST

		STATIO	√ TKG	
Transmission Path: From Station TE	CG	to STATION	V TID	
Exciter Serial No. 003	Frequency_	774•9599	0	MC
AN/FRC-39 EXCITER, RADIO 1. POWER OUTPUT		XPECTED	ACTUAL	
Power Output 2. CARRIER FREQUENCY Frequency	•	Ninimum 10 watts 001% of assigned	11.0	- watts MC
3. EXCITER RESPONSE AND DEVIATION Lower I db point Upper I db point Bandwidth		Minimum 6.0 MC	-3.841 +4.043 7.884	WC WC
4. HF Deviation Level at J4		14dbm+0.5 dbm	14.0	_dbm
5. ADJUSTMENT OF FOUR RECEIVERS 6. LF DEVIATION Size of the state of		Ser.NO.006 Ser.NO.005	10.0	_Initials
7. ORDER WIRE DEVIATION & LEVEL Output at J26-J27	_	10dbm + 0.5dbm	10.0	_dbm
8. PILOT TONE LEVEL AND DEVIATION Radio Pilot Level J51 Deviation at J14 on \$1893	2	0 to 35 volts 20 dbm <u>+</u> 0.5 dbm	25.0	volts _dbm
9. DUAL MODULATOR OPERATION Exciter No. 1 Driving Exciter No. 2 Driving			*	_lnitials _lnitials
* Test not performed-OUT		OATE December	er 1963	_

SUPERVISOR

QUALITY ASSURANCE

BR 11/71"

FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET

AN/FRC-39 STATION TEST

		STATION	TKG	373
Transmission Path: From Station	TKG	to STATION	TID	
Exciter Serial No. 004	Frequency	774-95990	•	MC
AN/FRC-39 EXCITER, RADIO				
I. POWER OUTPUT		EXPECTED	ACTUAL	
Power Output		Minimum 10 watts	10.5	watts
2. CARRIER FREQUENCY Frequency		.001% of assigned	774•958976	_MC
3. EXCITER RESPONSE AND DEVIATION Lower I db point Upper I db point Bandwidth		Minimum 6.0 MC	66.558 73.442 6.884	MC MC MC
4. HF Deviation Level at J4		14dbm + 0.5 dbm	14.0	_dbm
5. ADJUSTMENT OF FOUR RECEIVERS		Ser.NO.007 Ser.NO.008	Ma	_Initials
6. LF DEVIATION Signal Level at J14		10dbm + 0.5dbm	10.0	_dbm
7. ORDER WIRE DEVIATION & LEVEL Output at J26-J27		10dbm + 0.5dbm	10.0	_dbm
8. PILOT TONE LEVEL AND DEVIATIO Radio Pilot Level J51 Deviation at J14 on S1893		20 to 35 volts -20 dbm + 0.5 dbm	23.5	_volts _dbm
9. DUAL MODULATOR OPERATION Exciter No. 1 Driving Exciter No. 2 Driving			*	_Initials _Initials
* Test not performed-			ber 1963	_

SUPERVISOR Jilliam K. Suthfulge
QUALITY ASSURANCE parch Walfourier

8-4

BR 11/72

BIG RALLY II PROJECT

DATA SHEET

AN/FRC-39 STATION TEST

	SIAHOI	A TOTODO	
Transmission Path: From StationT.I.D.	to STATION	T. K.G.	
Amplifier Serial No. # 001	Frequency	9 95.92	MC
Exciter Serial No. # 001			
AN/FRC-39 POWER AMPLIFIER, RADIO			
	EXPECTED	ACTUAL	
I. INPUT POWER	Min. 10 watts	55.55	watts {
2. OUTPUT FORWARD POWER	Min. 10 KW	10 KW	_watts.
3. OUTPUT BACK POWER	Max. 280 W	15	watts
4. VSWR	Max. 1.40	1.08	
5. FAULT RECYCLING		R.S.K.	Initials
6. KLYSTRON COOLANT FLOW	Min. 17 GPM	28,5	_GPM

DATE	3 Dec. 1963
TESTER	18 Chites
SUPERVISOR	Blerst.
QUALITY ASSURANCE	Petrick Skir
GEETA Roll	B. S. Kouger

BR 11/72

BIG RALLY II PROJECT DATA SHEET

AN/FRC-39 STATION TEST

	SIAIIO	N T.I.D.	
Transmission Path: From Station ###### T	i.D. to STATION	T.K. G.	
Amplifier Serial No. # 002	Frequency	895~.92	MC
Exciter Serial No. # 002			
AN/FRC-39 POWER AMPLIFIER, RADIO			
	EXPECTED	ACTUAL	
I. INPUT POWER	Min. 10 watts	9.5	watts
2. OUTPUT FORWARD POWER	Min. 10 KW		watts
3. OUTPUT BACK POWER	Max. 280 W	60	_watts
4. VSWR	Max. 1.40	1.15	_
5. FAULT RECYCLING		R.S.K.	Initials
6. KLYSTRON COOLANT FLOW	Min. 17 GPM	30	_GPM

DATE # 3 Dec 1963
TESTER States
SUPERVISOR OBSERST
QUALITY ASSURANCE Jahrel Plus
GEETA Rolph & Khuger

BR 11/72

BIG RALLY II PROJECT DATA SHEET

AN/FRC-39 STATION TEST

		STATI	ON TKG	
Transmission Path: From Stat	rion TKC	to STATIC	N TID	
Amplifier Serial No.	003	Frequency	774-95990	MC
Exciter Serial No	004			
AN/FRC-39 POWER AMPLI	FIER, RADIO			,,,
		EXPECTED	ACTUAL	
I. INPUT POWER		Min. 10 watts	* 6.0	watts
2. OUTPUT FORWARD POW	VER	Min. 10 KW	10.0 K	_watts.
3. OUTPUT BACK POWER		Max. 280 W	190	_watts
4. VSWR		Max. 1.40	1.32	_
5. FAULT RECYCLING			M.B. T	Initials
6. KLYSTRON COOLANT	FLOW	Min. 17 GPM	31	_GPM

* OUT OF SPEC.

DATE 20 December 1963
TESTER ///
SUPERVISOR Sillien A Studie de
QUALITY ASSURANCE LE AMORBONSE
GEEL Devold a Valorie

BR 11/72

BIG RALLY II PROJECT DATA SHEET AN/FRC-39 STATION TEST

	STATI	ON TKG	
Transmission Path: From Station TKG	to STATIO	N TID	
Amplifier Serial No. 004	Frequency	774-95990	MC
Exciter Serial No. 003			
AN/FRC-39 POWER AMPLIFIER, RADIO			
	EXPECTED	ACTUAL	
I. INPUT POWER	Min. 10 watts	*5.5	watts
2. OUTPUT FORWARD POWER	Min. 10 KW	10.0 %	watts.
3. OUTPUT BACK POWER	Max. 280 W	80	watts
4. VSWR	Max. 1.40	1.20	
5. FAULT RECYCLING	*	ilsto	Initial
6. KLYSTRON COOLANT FLOW	Min. 17 GPM	28	GPM

OUT-OF SPEA

	DATE	12 De	cember	1963
	TESTER	1/3/	24	
SU	PERVISOR ()	lian-K	1 Dal	riled.
QUALITY A	SSURANCE	IM a	Barre	il
	GEETA	Zeralo	1476	lown
	38			

ER II/73 Rev.

BIG RALLY II PROJECT

DATA SHEET
AN/FRC-39 STATION TESTS

STATION T.I.D.

TRANSMISSION PATH: Station T.K.G. to STATION T.I.D.
l. Receiver Gain Paramettric Amplifier and Converter #001 #002 #003 #004 Rec 1 V Rec 2 H Rec 3 V Rec 4 H
Required: Minimum 40 42 41 40.5 41.5 2. Receiver Sensitivity (20db Quieting Level) V Rec#001 Rec#002 Rec#003 Rec#004 Req uired: Maximum 4.5uv 2.5 2.5 2.7 2.4
3. DC Control Voltages Rec#001 Rec#002 Rec#003 Rec#004
DC Control Voltag Req45 Volts-45 -45 -45 -45 -45
Rec#001 Rec#002 Rec#003 Rec_#004 Vertical Receiver Outputs (no inputs)
Required: Maximum Difference 2db1514.5
Vertical Receiver Outputs (30db quieting - 45.5 Ref:
Req uired: 1.5 to 4.5db less than individual receiver -47 -47.5

Horizontal Receiver Outputs (no inputs	3) Ved 2 A	Rec 4 H
Req uired: Maximum Difference 2db	14.	5 15
Horizontal Receiver Outputs (30db quie	ting-Ref)	7 = 47
Required: 1.5 to 4.5db less than individual receiver		<u>49 – 49</u>
5. Receiver Pilot Tone Operation Test	R.S.K.in	itial
6. Antenna System VSWR		
Required: Maximum 1.40	VERT.	HOIZ.
Antenna 1	1.19	1.22 &
Antenna 2	1,28	1,22

	Date 3 Dec. 1963
	Tester // Cuton
	Supervisor OBGerst
Quality	Assurance Tatail Funt
	GEEIA Ralph Sittinger

PAGE 2 of 2

BR11/73REV.

FEDERAL ELECTRIC CORPORATION BIG RALLY 11 PROJECT DATA SHEET AN/FRC-39 STATION TESTS

왕이 그렇게요? 뭐야 하고 얼마 하고 보였다.	STATION TKG
TRANSMISSION PATH: STATION TKG	TO STATION TID
1. Receiver Gain	REC 1V REC 2H REC 3V REC4H
Parametric Amplifier and Converter	
Required: Minimum 40db	40.4db 40.2db 40.5db40.3
2. Receiver Sensitivity(20db Quieting	Level)
	REC 1V REC 2H REC 3V REC4H
Required: Maximum 4.5uv	
	2.7 2.8 2.9 2.6
3. DC Control Voltage	
DC Control Volts	
불병 교회에 가장 그리고 하는 사람들이 없었다.	REC 1V REC 2H REC 3V REC4H
Required: -45 Volts	ABO ABO ABO
	<u>-45.0</u> <u>-45.0</u> <u>-45.0</u> <u>-45.</u>
	····
4. Diversity Combiner	
Vertical Receiver Outputs (no i	nput) REC_1V REC2H
Required; Maximum Difference	2db +8.0db +7.2db
Vertical Receiver Outputs (30dv	quieting-Ref -20.0 -22.8
Combined (Vertical)	
Required: 1.5 to 4.5db less	than
individual receiver	2.5 3.7
나는 사람들은 사람들이 되었다.	

	Horizontal Rec	eiver Outputs (no input)	REC 3V	REC 4H
	Required:	Maximum Difference 2db	+8.0	+9.5
	Horizontal Rec	eiver Outputs (30 db Quiet:	ing-ref)-22.0	-21.5
	Required:	1.5 to 4.5db less than individual receivers	4db	3db
5.	Receiver Pilot	Tone Operation Test	initi	al
6.	Antenna System	VSWR		
				WARTS
	Required:	Maxmum 1.40	VERT.	HORIZ.
		Antenna l	(<u>*)</u>	1.35
		Antenna 2	1.27	1.35
	NEGS EO ETTO *			

SUPERVISOR

QUALITY ASSURAN

Page 2 of 2

BR11/74

BIG RALLY II PROJECT

DATA SHEET

AN/FRC-39 OVERALL TEST

				L _e
Transmission Path: From T.K.G.	Station to	T.I.D.		Station
Exciter Serial No. # 001	_			
Serial No. Receiver A # 001 V	Receiver B	# 002	H	
Power Amplifier Serial No. # 001		1		
	EXPECTED		AC	TUAL
I. SYSTEM INTERMODULATION			1 W	2 H
Frequency 15 KC 55 KC	Maximum -55	/	Rec. A - 55	Rec.B -50 dbr
80 KC 475 KC	Maximum -5	5 dbm	- 53 - 51 - 54	- 53 db - 51 db - 52 db
2. RADIO BASEBAND FREQUENCY RESPONSE				
	EXPECTED		A	CTUAL
Frequency			Rec. A	Rec. B
12 KC	0.1.1.11		- 11.8	- 11.8 db
20 KC 30 KC	-2 + 1 dbm with		- 11	- 11.2 db
40 KC	respect		<u>- 10.7</u> - 10.6	- 10.8 db
50 KC	to 30 KC		- 10.6	- 10.7 db
60 KC	level		- 10.6	- 10.6 db
64 KC			- 10	- 10 db
150 KC	+ 0.25 dbm		- 10.1	- 10 db
308 KC	per 250 KC		- 10.2	- 10.2 db
450 KC	of frequency		-10.25	- 10.25 dbr
552 KC	Change with to 64 KC	respect	- 10,3	-10,25 dbr

BR11/74

BIG RALLY II PROJECT

DATA SHEET

AN/FRC-39 OVERALL TEST

	SIATION	T.I.D.
Transmission Path: From T.K.G.	Station to T.I.D.	Station
Exciter Serial No. # 002		4
Serial No. Receiver A # 003 #V 3	Receiver B# # 00 4 # 3	F4. H
Power Amplifier Serial No. # 002		
	EXPECTED	ACTUAL .
I. SYSTEM INTERMODULATION	эv	
Frequency 15 KC 55 KC 80 KC 475 KC	Maximum -55 dbm -50 Maximum -55 dbm -50 Maximum -55 dbm -51 Maximum -55 dbm -51	
2. RADIO BASEBAND FREQUENCY RESPONSE	EXPECTED 3 V	ACTUAL 4 H
Frequency 12 KC	Rec.	
20 KC 30 KC 40 KC 50 KC 60 KC	-2 + 1 dbm - 10. with - 10 respect - 9. to 30 KC - 9. level 9.5	25 - 11.3 dbm - 10 dbm 8 - 10 dbm 5 - 10 dbm
64 KC	- 1	0 - 10 dbm
150 KC 308 KC 450 KC	+ 0.25 dbm - 9.8- ±6 per 250 KC - 9.8 of frequency - 9.9	$\frac{1000 - 10}{10.2}$ dbm
552 KC	Change with respect to 64 KC	- 10.3 dbm

DATE 5 Dec. 1963
TESTER
SUPERVISOR QUALITY ASSURANCE

BR11/74

SUPERVISOR /

BIG RALLY II PROJECT

DATA SHEET

AN/FRC-39 OVERALL TEST

	ANTE	(C-39 O	VERALL TEST			
					STATION_	TKG
ransmission Path: From	TKG		Station to_	TII)	Station
xciter Serial No. 003			_			
Serial No. Receiver A 0	05 (1%)		Receiver B#	006	(2H)	
Power Amplifier Serial No	003		_		:	
	4.5		EXPECTED		AC	TUAL
I, SYSTEM INTERMODULAT	ION		į			
Frequency 15 KC 55 KC 80 KC 475 KC		-35 -31.	OMaximum OMaximum OMaximum OMaximum Hoecu3	-55 dbm -55 dbm	Rec. A * * * * *	Rec.B * dk * d
RADIO BASEBAND FREQUE	JENCY RESP	ONSE 2				CTILL
Frequency 12 KC 20 KC 30 KC 40 KC 50 KC			-2 + 1 db with respect to 30 KC level	m	Rec. A -11.8 -10.8 -10.2 -09.7 -09.3 *-09.0	-11.5 d -10.6 d -10.0 d -09.7 d -09.2 d
64 KC 150 KC 308 KC 450 KC 552 KC			+ 0.25 dbi per 250 K of frequent Change with to 64 KC	(C ncy	-10.25 -10.25 -10.40 -10.50	-10.2 d
* Test not perfor	cmed-OUT	OF SPEC	•			/
					STER 5 De	dember19

BR11/74

BIG RALLY II PROJECT

DATA SHEET

AN/FRC-39 OVERALL TEST

			STATION	TKG
Transmission Path: From	TKG	Station to	TID	Station
Exciter Serial No.	004			
Serial No. Receiver A	007 (37)	Receiver B#	008 (4Н)	
Power Amplifier Serial No	003			
		EXPECTED	AC	TUAL -
SYSTEM INTERMODULAT	ION		1	
Frequency 15 KC 55 KC 80 KC 475 KC	-420 - 50 GAN-41.0 - 45	B Maximum -55 dbr 0.0 Maximum -55 dbr 0.0 Maximum -55 db 0.0 Maximum -55 db	m /*	Rec.B * db * dl * dl * d
RADIO BASEBAND FREQ	UENCY RESPONSE			
Frequency 12 KC 20 KC 30 KC 40 KC 50 KC 60 KC		-2 + 1 dbm with respect to 30 KC level	Rec. A -11.1 -10.2 -10.0 -09.9 -09.9	-11.3d -10.6d -10.2d -10.1d -10.1d
64 KC 150 KC 308 KC		+ 0.25 dbm per 250 KC of frequency	-10.1 -30.0 -10.1 -10.1	-10.1d

DA	TE 5 December 1963
TEST	ER LAND MAN
SUPER	115 OR sillian & Billant
QUALITY ASSUR	ANCES EM Brench

APPENDIX

The below data is in reference to the System Intermodulation theck performed at site TKG using Receiver "A" Ser. No. 007 and Power Amplifier Ser. No. 003.

Intermod. into the dummy load at 10.0KW power out, with reflected power at 55.0 watts.

REC. "A"
-51 dbm -
-51 dbm
-54 dbm
-54 dbm

DATE 19 Décember 1963

TESTER

SUPERVISOR

QUALITY ASSURANCE

Joseph Malbower

Intermod. into antenna C-2 at 10.0KW power out, with reflected power at 190 watts.

FREQUENCY	REC.	HAH
. 15 KC	-41	dbm
55 KC	-35	dbm
80 KC	-31	dbm
475 KC	-31	dbm

DATE 20 December 1963

TESTER

SUPERVISOR-

QUALITY ASSURANCE

8-17

FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET

BR 11/75

	Al	N/FRC-39 LINK TEST			
and the state of t			STATION	T.I.D.	a
Transmission Path:	From T.K.G.	Station to	T.I.D.	Statio	n į
V. Exc. Serial No.		V. Rec. Serial No.	# 001		
H. Exc. Serial No.	# 002	V. Rec. Serial No.	# 003		
V. P. A. No.	# 001	H. Rec. Serial No.	# 002		
H. P. A. No.	# 002	H. Rec. Serial No.	# 004		100
V. Trans. Ant. No					•
H. Trans. Ant. No	. # 2				
I PADIO NOISE A	NO COUDIOUS TONIS	15/616			
I. KADIO NOISE A	AND SPURIOUS TONE	EXPECTED		ACTUA	
		LATECIED	D A	Freq. Noise I	
Baseband Noise		-60 dbm		KC	dbm
Descoula 1 10130		00 00		KC	-dbm
	HO NOISE GR	EATER THAN - 64 dbm		KC	dbm
				KC	dbm
				KC	dbm
				KC	dbm
will not be 2. RADIO BASEBA	ND FREQUENCY RES	PONSE		ACTUAL	•
	12 KC			= 10.8	dbm
	20 KC	-2 + 1 dbm with		- 9.7	dbm
	30 KC 40 KC	respect	1. 1	<u>- 9.4</u> - 9.7	dbm
	50 KC	to 30 KC		- 9.7	dbm
	60 KC	level		10	dbm
	64 KC 150 KC	+ 0.25 dbm		- 9.7	dbm
	308 KC	per 250 KC		<u>- 10</u> - 10	dbn
	450 KC	of frequency	* 10	- 9.7	dbm
	552 KC	change with resp	ect	- 10	dbm
		to 64 KC			
			DATE 7	Dec. 1963) //	
			TESTER /	27/Arts	
		\$	UPERVISOR C	Rejorat	_
			SSURANCE	1-1-01	201
				911	7.4
		GEE	IA STATES	Asuger	<i>e</i> 3
		2 4 3 2 4 1		R-1	8

FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET

BR 11/75

ansmission Poth:	From TKG	Station to	STATION_ TID	TKG Station
Exc. Serial No.	004	V. Rec. Serial No.	005	Station
Exc. Serial No.	003	V. Rec. Seriol No.	007	
P. A. No.	003	H. Rec. Serial No.	006	
I. P. A. No.	N/A	H. Rec. Seriol No.	008	
Trans. Ant. No		ii. Nec. Serior 140.	000	
I. Trans. Ant. No				
A Committee of the Comm		C 151516		
, RADIO NOISE A	ND SPURIOUS TON	EXPECTED		ACTUAL
		LAILCILD		Freq. Noise Le
Baseband Noise		-60 dbm		N/A KC N/A
odserving 1 10130				N/A KC N/A
	46.8			N/A KC N/A
	Baseband sc	anned, no levels fo	und	N/A KC N/A
***		n -60dbm. (PA#004)		NC 11/ 2
				N/A KC N/A
NOTE: Record all i will not be		hon -60 dbm, except 60 l	KC	N/A KC N/A
will not be			KC	N/A KC N/A
will not be	recorded.		KC	N/A KC N/A
will not be	recorded. ND FREQUENCY RES FREQUENCY 12 KC	PONSE	KC	
will not be 2. RADIO BASEBAI	FREQUENCY RES FREQUENCY 12 KC 20 KC	PONSE EXPECTED -2 + 1 dbm	KC	ACTUAL -11.0 -10.3
will not be 2. RADIO BASEBAI Receiver	FREQUENCY RES FREQUENCY 12 KC 20 KC 30 KC	PONSE EXPECTED -2 + 1 dbm with	KC	ACTUAL -11.0 -10.3 -10.2
will not be 2. RADIO BASEBAL Receiver 005	FREQUENCY RES FREQUENCY 12 KC 20 KC 30 KC 40 KC	PONSE EXPECTED -2 + 1 dbm with respect	KC	ACTUAL -11.0 -10.3 -10.2 -09.5
will not be 2. RADIO BASEBAI Receiver	FREQUENCY RES FREQUENCY 12 KC 20 KC 30 KC	PONSE EXPECTED -2 + 1 dbm with	KC	ACTUAL -11.0 -10.3 -10.2
will not be 2. RADIO BASEBAL Receiver 005	FREQUENCY RES FREQUENCY 12 KC 20 KC 30 KC 40 KC 50 KC	PONSE EXPECTED -2 + 1 dbm with respect to 30 KC	KC	ACTUAL -11.0 -10.3 -10.2 -09.5 -09.5
will not be 2. RADIO BASEBAL Receiver 005	FREQUENCY RES FREQUENCY 12 KC 20 KC 30 KC 40 KC 50 KC 60 KC	PONSE EXPECTED -2 + 1 dbm with respect to 30 KC	KC	ACTUAL -11.0 -10.3 -10.2 -09.5 -09.5
will not be 2. RADIO BASEBAL Receiver 005	FREQUENCY RES FREQUENCY 12 KC 20 KC 30 KC 40 KC 50 KC 60 KC	PONSE EXPECTED -2 + 1 dbm with respect to 30 KC level	KC .	ACTUAL -11.0 -10.3 -10.2 -09.5 -09.5 -09.5
will not be 2. RADIO BASEBAL Receiver 005	FREQUENCY RES FREQUENCY 12 KC 20 KC 30 KC 40 KC 50 KC 60 KC	PONSE EXPECTED -2 + 1 dbm with respect to 30 KC level + 0.25 dbm	KC	ACTUAL -11.0 -10.3 -10.2 -09.5 -09.5
will not be 2. RADIO BASEBAL Receiver 005	FREQUENCY RES FREQUENCY 12 KC 20 KC 30 KC 40 KC 50 KC 60 KC 150 KC 308 KC 450 KC	PONSE EXPECTED -2 + I dbm with respect to 30 KC level + 0.25 dbm per 250 KC of frequency	*	ACTUAL -11.0 -10.3 -10.2 -09.5 -09.5 -09.5 -09.5 -09.5
Receiver 005 007	FREQUENCY RES FREQUENCY 12 KC 20 KC 30 KC 40 KC 50 KC 60 KC 150 KC 308 KC 450 KC 552 KC	PONSE EXPECTED -2 + 1 dbm with respect to 30 KC level + 0.25 dbm per 250 KC of frequency change with respet to 64 KC	ect *	ACTUAL -11.0 -10.3 -10.2 -09.5 -09.5 -09.5 -09.5
Receiver 005 007	FREQUENCY RES FREQUENCY 12 KC 20 KC 30 KC 40 KC 50 KC 60 KC 150 KC 308 KC 450 KC 552 KC	PONSE EXPECTED -2 + I dbm with respect to 30 KC level + 0.25 dbm per 250 KC of frequency change with respe	ect *	ACTUAL -11.0 -10.3 -10.2 -09.5 -09.5 -09.5 -09.5 -09.8 -09.8

irald of forts

QUALITY ASSURANCE

BRII/101

North Van

FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET

150 KW POWER GENERATING SYSTEM

STATION_

	보험 그림 그는 그들은 그 이 사람들은 그리고 있다면 다음하다고	8	
FREQ	UENCY (See Para. 7)	La .	
Ger	merator l		
•	Name Plate Frequency	60	_cps
Α.	Steady State Load Minimum Frequency Reading Maximum Frequency Reading	60 59	_cps
В.	Sudden Change - Full Load to No Load Minimum Frequency Maximum Frequency Recovery Time	59 60 2	cps cps Seconds
-6.	Sudden Change No Load to Full Load - Minimum Frequency - Maximum Frequency - Recovery Time	>	cps cps Seconds
Ger	Name Plate Frequency	60	_cps
Α.	Steady State Load Minimum Frequency Reading Maximum Frequency Reading	60 61	_cps
В.	Sudden Change - Full Load to No Load Minimum Frequency Maximum Frequency Recovery Time	60 61 2	_cps _cps _Seconds
-c.	Sudden Change No Load to Full Load Minimum Frequency Maximum Frequency Recovery Time DATE TESTER SUPERVISOR QUALITY ASSURANCE	Nov.	cps cps Seconds 1963
	GETEIN WAI	ter L	Chang

FEDERAL ELECTRIC CORPORATION BRII/102 BIG RALLY II PROJECT

DATA SHEET

150 KW POWER GENERATING SYSTEM

STATION T. T. D. North Van

T	Test I	Test II(Corrected
Generator 2	Testi	Unbalance)
Phase I	259	Olibalance
Amperes	120	
Volts	es 43,086	
Volts x Amper	es 43,	
Phase II		
Amperes	-370-	
Volts	120	
Volts x Amper	res 44,400_	
Phase III		
Amperes	340	
Volts	120	
Volts x Amper		
Generator II		
Phase I		
Amperes	315	
Volts	120	
Volts x Ampe		
Divers II		
Phase II	222	
Amperes Volts	7.20	
Volts x Ampe:	res 20 41.0	
· ·	res 38,640	
Phase III		
Amperes	305	
Volts	120	
Volts x Ampe	res 36,600	
	DATE 26m	Nov 1963
	TESTER .	5 CM long
	RVISOR Luss	ell Elaster
QUALITY ASSU	11-	of Bunt
Geeia	(1)017	Tr Mara
Geela		 9

FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET

150 KW POWER GENERATION SYSTEM

STATION TID NORTH VAN

3.	PHASING (See Para. 9)	
	Generator I	
	Phase II 120 voits Phase III 120.5 volts Phase III volts	
	Generator II	
	Phase II Phase III Phase III Phase III Phase III	
4.	NEUTRAL GROUNDING (See Para. 10)	
	Generator I	
	Ground Rod to Neutral Terminal OHMS	3
	Generator II	
	Ground Rod to Neutral Terminal . OHMS	5
	DATE 26 NOV 196 TESTER Sale CMobil	3
	SUPERVISOR Kussell & Carter	
	QUALITY ASSURANCE Setwick the Aleund	-
	GEETA Walter hang	-

FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT

DATA SHEET

150 KW DIESEL GENERATOR SYSTEM

STATION_

TERMINAL VOLTAGE (See Para. II)

Percent Voltage Drop (Generator Panel Board Voltage Terminal Voltage x100% Generator Panel Board Voltage

3 Phase 208 Volts

		Generator Panel Board Volt.	Term. Volts	% Volt Drop
Feeder I	Phase 1 & 2	232	231	1
	Phase 2 & 3	233	232	
	Phase 3 & 1	231	231	
	Phase I to Neutral	23/1	134	
	Phase 2 to Neutral	132	131	1
	Phase 3 to Neutral	128	128	
Feeder II	Phase 1 & 2	231	231	
	Phase 2 & 3	233	232	1
	Phase 3 & 1	235	235	
	Phase I to Neutral	133	133	
	Phase 2 to Neutral	131	130	1
	Phase 3 to Neutral	134	133	<u> </u>
Feeder III	Phase 1 & 2	231	231	
A contract of	Phase 2 & 3	232	231	
	Phase 3 & 1	231	231	
	Phase i to Neutral	133	132	
Secretary and the second	Phase 2 to Neutral	132	132	
	Phase 3 to Neutral	13/1	134	

SUPERVISOR QUALITY ASSURANCE GEETA

FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET 150 KW POWER GENERATING SYSTEM

TID NORTH VAN STATION.

GENERATOR TRANSFER OPERATION (See Para. 12)

Generator I

Voltage

Amperage Wattage Frequency

	Normal Operating Conditions	Conditions New Duty Unit After Transfer
Voltage Amperage Wattage Frequency	120 400 410 357 120 60	120 120 120 420 430 370 135 KW 60
Time in Second	ls to Effect Transfer 2	seconds.
Generator II		
	Normal Operating Conditions	Conditions New Duty Unit After Transfer
Voltage	121 122 121	120 122 122

Time in Seconds to Effect Transfer_

220

TESTER SUPERVISOR QUALITY ASSURANCE

320

295 250

FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET 150 KW DIESEL GENERATING SYSTEM

BRII/106

STATION TID NORTH VAN

7. PARALLELING TEST (See Para. 13)

Generator I (After Paralleling)

Amps	420	Amps
Watts	120 KW	Watts
Volts	120	Volts
Frequency	60	CPS
Cachometer Reading		RPM-

Generator II (After Paralleling)

Amps	430	Amps
Watts	135 KW	Watts
Volts	120	Volts
Frequency	_60	CPS
- Tachometer Reading		RPM-

DATE 26/6V 1963
TESTER Sursell & Carle
SUPERVISOR Lungle & Carle
QUALITY ASSURANCE Later A Survey
GEELA Celaitin & Change

FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET

150 KW POWER GENERATING SYSTEM

STATION TID SUTH VAN 1. FREQUENCY (See Para. 7) Generator 1 60 Name Plate Frequency _cps Steady State Load Minimum Frequency Reading Maximum Frequency Reading cps Sudden Change - Full Load to No Load B. Minimum Frequency cps Maximum Frequency cps Seconds Recovery Time Sudden Change No Lead to Full Minimum Frequency cps - Maximum Frequency Seconds Recovery Time Generator II Name Plate Frequency cps Steady State Load Minimum Frequency Reading cps Maximum Frequency Reading cps Sudden Change - Full Load to No Load B. Minimum Frequency cps cps Maximum Frequency Recovery Time Seconds Sudden Change - No Load to Full Load Minimum Frequency Maximum Frequency cps Seconds Recovery Time DATE 26 November 1963 TESTER _ SUPERVISOR 4 QUALITY ASSURANCE GEETA Wester

BIG RALLY II PROJECT

DATA SHEET

150 KW POWER GENERATING SYSTEM

STATION_	TID	Sound VAL	J
011111011_			_

2. LOAD BALANCE (See Para. 8)

Generator	r I	Test I	Test II(Corrected
Pha	se I		Unbalance)
	Amperes	318	
	Volts	_120	
	Volts x Amperes	38,160	
Pha	se II		
¥ 110	Amperes	320	
	Volts	122	
	Volts x Amperes	39040	
	volta n Imporos	27500	
Pha	se III		
	Amperes	241	
	Volts	122	
	Volts x Amperes	X67 2940	2
C			
Generato			
Pha	se I	305	
	Amperes		
Santa a la	Volts	120 36600	
	Volts x Amperes	30000	
Pha	se II		
	Amperes	305 .	
	Volts	121	
	Volts x Amperes	36905	
	, 0230 07 22 07 07 07 07 07 07 07 07 07 07 07 07 07		
Pha	ase III	•	
	Amperes	330	
	Volts	121	
	Volts x Amperes	39930	
	DAT	26 Nov	rember 1963
	TESTE	R. Darl	DC Mobile
	SUPERVISO	Mus	ell E Carta
	QUALITY ASSURANCE	Titicko	A flunt
			- PO
	GEE IA	eacter	& Clara
			J

FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET

150 KW POWER GENERATION SYSTEM

STATION TID TOUTH VAL

d M				
. P	HASING (See Para. 9)			
	Generator I			
	Phase I Phase II Phase III	120.5 120 120.5	_volts _volts	
	Generator II			
	Phase II Phase III	120.5 120 120.5	_volts	
. N	EUTRAL GROUNDING (S	See Para. 10)		
	Generator I			
	Ground Rod to Neutra	l Terminal	2	_OHMS
	Generator II			
	Ground Rod to Neutra	l Terminal	2	_OHMS

DATE 26 November 1963

TESTER Don C. Mohart

SUPERVISOR Mussell & Carter

QUALITY ASSURANCE Straigh of Alunt

GEETA Walter & Care

FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT

DATA SHEET

150 KW DIESEL GENERATOR SYSTEM

STATION TID SOUTH VAN

5. TERMINAL VOLTAGE (See Para. II)

Percent Voltage Drop (Generator Panel Board Voltage-Terminal Voltage x100% Generator Panel Board Voltage

		3 Phase 208 Volt	<u>s</u>	
		Generator Panel Board Volt.	Term. Volts	% Volt Drop
Feeder I	Phase 1 & 2	210	210	
	Phase 2 & 3	202	211	1%
	Phase 3 & 1	213	213	
	Phase 1 to Neutral	120	121	77%
	Phase 2 to Neutral	118		1%
	Phase 3 to Neutral	121	120	1%
Feeder II	Phase 1 & 2	212	210	1%
	Phase 2 & 3	212	_212	
	Phase 3 & 1	- 213	213	
	Phase 1 to Neutral	121	121	
	Phase 2 to Neutral	118	117	1%
	Phase 3 to Neutral	121	121	
Feeder III	Phase 1 & 2	212		
	Phase 2 & 3	212		
	Phase 3 & 1	213		
	Phase 1 to Neutral	120		
	Phase 2 to Neutral	118		
	Phase 3 to Neutral	121		

DATE 26 November 1963

TESTER Super Confer Supervisor S

FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET 150 KW POWER GENERATING SYSTEM

STATION_TI

TID SOUTH VAN

GENERATOR TRANSFER OPERATION (See Para. 12)

Generator I

	Normal Operating Conditions		Conditions New Duty Unit After Transfer
Voltage	121 121 122		121 121 122
Amperage	310 350 370		310 350 370
Wattage	115 KW	C.	115 KW
Frequency	60 cps		60 cps
Time in Seconds	to Effect Transfer_	6	seconds.

Generator II

	Normal Operating Conditions	Conditions New Duty Unit After Transfer
Voltage	121 121 122	121 121 122
Amperage	310 350 370	310 350 370
Wattage	115 KW	115 KW
Frequency	60 cps	60 eps

Time in Seconds to Effect Transfer__7____seconds.

DATE Z6 November 1963
TESTER Into C Mobil
SUPERVISOR Knowlf & Confer
QUALITY ASSURANCE Tatrick 9h Aunt
GEETA Whites & Cray

BRII/106

BIG RALLY II PROJECT

DATA SHEET

150 KW DIESEL GENERATING SYSTEM

STATION T ID SOUTH VAN

7. PARALLELING TEST (See Para. 13)

Generator I (After Paralleling)

 Amps
 310 380 350 Amps

 Watts
 118 KW Watts

 Volts
 121 120 121 Volts

 Frequency
 60 cps CPS

 Tachometer Reading
 RPM

Generator II (After Paralleling)

 Amps
 320 370 400 Amps

 Watts
 115 KW Watts

 Volts
 118 120 120 Volts

 Frequency
 60 CPS

 Tachometer Reading
 RPM

DATE 26 November 1963

TESTER Ses Consult

SUPERVISOR Susell & Carse

QUALITY ASSURANCE Gatack It Alumit

GEEIA United Straight

^{*} A salt water dummy load was us ed for this test which accounts for the different readings after paralleling the units.

BIG RALLY II PROJECT

DATA SHEET

60 KW POWER GENERATING SYSTEM

STATION	TAT.
	10

BRII/111

Ger	nerator I		
	Name Plate Frequency	60	срв
A.	Steady State Load	(0	e le
	Minimum Frequency Reading Maximum Frequency Reading	60	cps
в.	Sudden Change - Full Load to No Load		
	Minimum Frequency	60	cps
	Maximum Frequency	61	cps
	Recovery Time	3	Second
c.	Sudden Change No Load to Full Load		
	Minimum-Frequency		cps
	-Maximum Frequency		cps
	(Recovery Time		Second
Ger	nerator II		
	Name Plate Frequency	60	cps
A.	Steady State Load		
	Minimum Frequency Reading	m 60	cps
٠.	Maximum Frequency Reading	60	cps
B.	Sudden Change - Full Load to No Load	60	
	Minimum Frequency	60	cps
	Maximum Frequency	61	cps-
	Recovery Time	2	Second
C.	Sudden Change No Load to Full Load		
	-Minimum-Frequency		GP8
	-Maximum-Frequency		cps
	Recovery Time	/	Second
	DATE 28 NOV. 1	963	
	TESTER Frankin C.	Gold	
	SUPERVISOR Lond	mes	1
	QUALITY ASSURANCE	mape	115
	I al a L	4/	

9-13

BRII/112

BIG RALLY II PROJECT

DATA SHEET

-60 KW POWER GENERATING SYSTEM

STATION___TAL

Generator X 2	
	Test I Test II (Corrected Unbalance
Phase I	(OOTTOCKE ONDERING
Amperes Volts Volts x Amperes	
Phase II Amperes Volts Volts x Amperes	
Phase III	영화에서 그게 생긴 그 생생이
Amperes Volts Volts x Amperes	80 120 9600
Generator KX 1	
Phase I	
Amperes Volts Volts x Amperes	60 120 7200
Phase II	
Amperes Volts Volts x Amperes	117 10530
Phase III	
Amperes Volts Volts x Amperes	80 118 9440
	TESTER Izator Malut
CIT	PERVISOR Fred nice
QUALITY A	HIVING IN
ROLLER A	Riset PC
	GEETA: Walles of Mass

FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET

60 KW POWER GENERATING SYSTEM

4.	CD AT
STATION_	TAL
SIMITON	

OHMS
OHMS

DATE 28 NOV. 63

TESTER South Constant
SUPERVISOR Constant
SUPERVISOR Constant
QUALITY ASSURANCE COLUMN South
GEETA Contin Poring

FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET 60 KW DIESEL GENERATOR SYSTEM

BRII/114

	STATION	TAL	
--	---------	-----	--

TERMINAL VOLTAGE (See Para. 11)

Percent Voltage Drop (Generator Panel Board Voltage - Terminal Voltage)x100%
Generator Panel Board Voltage

a l		Single Phase 208 Volts		
		Generator Panel Board Voltage		% Volt
Transformer I Transformer II		N/A	Volts	Drop_
		Three Phase 208 Volts Generator Panel Board Voltage	Terminal Volts	Volt Drop
Phase 1 to 2 Phase 2 to 3 Phase 3 to 1 Phase 1 to Neutr Phase 2 to Neutr	ral	21 22 21 2 21 4 1 30 1 28 1 29	210 212 213 129 128 129	0 1 V 2 V
Phase 3 to Neutr	rai	1,4/		

DATE 28 NOV. 63

TESTER Such Charles

SUPERVISOR Vogeth Mass

QUALITY ASSURANCE Allempotes

GEETA Walter Brang

FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET

BRII/115

STATION TAL

60 KW POWER GENERATOR SYSTEM

Generator I				
	N 1 0		Conditions New Unit After Tra	
	Normal Operat	ang Conditions	Unit After Tra	insie
Voltage	125		1.23	
Amperage	166		173	
Wattage	47 KW	·	13 KW	
Frequency	60		60	
Time in Secon	ds to Effect Tran	sfer 7	Seconds.	
Generator II				
Generator II				
		4.5	Conditions Ne	w Du
	Normal Operat	ting Conditions	Unit After Tra	
;		ting Conditions	Unit After Tra	
Voltage	122	ting Conditions	Unit After Tra	
Amperage	122		Unit After Tra	
Amperage Wattage	122 162 40 KW		125 163 46 KW	
Amperage	122		Unit After Tra	
Amperage Wattage Frequency	122 162 40 KW		125 163 46 KW	
Amperage Wattage Frequency	122 162 40 KW 60		125 163 46 KW 60	
Amperage Wattage Frequency	122 162 40 KW 60		125 163 46 KW 60	
Amperage Wattage Frequency	122 162 40 KW 60		125 163 46 KW 60	
Amperage Wattage Frequency	122 162 40 KW 60	nsfer 7	Unit After Tra 125 163 46 KW 60 Seconds.	
Amperage Wattage Frequency	122 162 40 KW 60		Unit After Tra 125 163 46 KW 60 Seconds.	
Amperage Wattage Frequency	122 162 40 KW 60 ds to Effect Tran	nsfer 7	Unit After Tra 125 163 40 KW 60 Seconds.	
Amperage Wattage Frequency	122 162 40 KW 60 ds to Effect Tran	DATE 28 NOT	Unit After Tra 125 163 40 KW 60 Seconds.	
Amperage Wattage Frequency	122 162 40 KW 60 ds to Effect Tran	DATE 28 NOT TESTER 2020 RVISOR 2020	Unit After Tra 125 163 40 KW 60 Seconds.	
Amperage Wattage Frequency	122 162 40 KW 60 ds to Effect Tran	DATE 28 NOT TESTER 2020 RVISOR 2020	Unit After Tra 125 163 40 KW 60 Seconds.	

FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET 60 KW DIESEL GENERATING SYSTEM

STATION	TAL	

PARALLELING TEST (See Para. 13)

Generator I (After Paralleling)

Amps	174	Amps
Watts KW	55	Watts
Volts	1.27	Volts
Frequency	60	cps
-Tachometer Reading		RPM

Generator II (After Paralleling)

Amps	170	Amps
Watts KW	46	Watts
Volts	123	Volts
Frequency	_60	срв
Tachometer Reading	a of the last on a second term	RPM

TESTER Jako efformantes Supervisor Toyal mine Quality Assurance

BRII/111

BIG RALLY II PROJECT

DATA SHEET

60 KW POWER GENERATING SYSTEM STATION TKR

FREQUENCY (See Para. 7)

Generator 1		
Name Plate Frequency	60	_срв
A. Steady State Load		
Minimum Frequency Reading	60	_ cps
Maximum Frequency Reading	60	срв
B. Sudden Change - Full Load to No Load	1.50	F
Minimum Frequency	59	_cps
Maximum Frequency	62	_cps
Recovery Time	3	_Seconds
G. Sudden Change No Load to Full Load		1
Minimum-Frequency		_cps
-Maximum-Frequency		cps
Recovery Time		Seconds
Generator II		
N. D. A. D.	60	1
Name Plate Frequency		cps
A. Steady State Load		
Minimum Frequency Reading	60	cps
Maximum Frequency Reading	60	cps
B. Sudden Change - Full Load to No Load		
Minimum Frequency	59	cps
Maximum Frequency	62	_ cps
Recovery Time	3	Seconds
C-Sudden Change No-Load to Full-Load		
-Minimum-Frequency		Gps
-Maximum-Frequency		_ cps
Récovery Time		Seconds
1		
DATE 27 OCTORE	R 1963	
TESTER TESTER	Meliar	<u>~</u>
SUPERVISOR Supervisor	1. De	min.
QUALITY ASSURANCE		
CO 10-0/2	12.	

BRII/112

BIG RALLY II PROJECT

DATA SHEET

60 KW POWER GENERATING SYSTEM

STATION___TKR

•	,
OAD BALANCE (See Para. 8) THIS TO THE INCOMPLETE CONF.	COULD NOT BE PREFORMED AT THIS TIME DUE IGURATION OF EQUIPMENT AND DUMMY LOADS
Generator I AT THIS SITE.	
	Test I Test II (Corrected Unbalance)
Phase I	
Amperes	
Volts Volts x Amperes	
Phase II	
Amperes	
Volts	
Volts x Amperes	
Phase III	
Amperes	
Volts Volts x Amperes	
Generator II	그 얼마나 하나 그 양양이 함께 보고 있었다.
Phase I	
Amperes	
Volts Volts x Amperes	-
Phase II	
Amperes Volts	
Volts x Amperes	
Phase III	
Amperes	
Volts	
Volts x Amperes	
	DATE 22 OCTOBER 1963
	TESTER HUKHRLIAN
su	PERVISOR Chilman Jane
QUALITY A	a VIA I (lan ind)
	GEETA U/PI/ty Crain

FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET

60 KW POWER GENERATING SYSTEM

STATION.	TKR
STATION.	

PHASING (See Para. 9)		
Generator I		
Phase I 120 vol Phase II 120 vol Phase III 120 vol	lts	
Generator II		
Phase I 120 vol Phase II 120 vol Phase III 120 vol	lts	
NEUTRAL GROUNDING (See Para. 10)		
Generator I		
Ground Rod to Neutral Terminal	-2	OHMS
Generator II		
Ground Rod to Neutral Terminal	•2	OHMS

DATE 22 OCTOBER 1963
TESTER WEWLEAN
SUPERVISOR FOR MANUAL
FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET 60 KW DIESEL GENERATOR SYSTEM

BRII/114

STATION TKR

TERMINAL VOLTAGE (See Para. 11)

Percent Voltage Drop (Generator Panel Board Voltage - [erminal Voltage]x100%
Generator Panel Board Voltage:

	Single Phase 208 Volts		
	Generator Panel Board Voltage		_
Transformer I Transformer II	N/A N/A	Volts N/A N/A	Drop N/A N/A
	Three Phase 208 Volts Generator Panel Board Voltage	Terminal Volts	% Volt
Phase 1 to 2 Phase 2 to 3 Phase 3 to 1 Phase 1 to Neutral Phase 2 to Neutral Phase 3 to Neutral	200 Volts 197 Volts 195 Volts 112 Volts 112 Volts 112 Volts	198 195 192 112 112 112	1% 1.5% No Drop No Drop

TESTER 1903 TESTER 10 AWilliam SUPERVISOR Community ASSURANCE March 1903 GEETA MILIAM

FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET

BRII/115

60 KW POWER GENERATOR SYSTEM

		ST	CATION	TKR		
En	NERATOR TRA	NSFER OPERATION (See Par	a. 12)			
	Generator I					
		Normal Operating Condition	18		ns New I er Trans	
	Voltage Amperage Wattage Frequency	120,120,120 180,150,185 56 KW 60 cps	_	190,1	20,120 60,195 KW	
	Time in Second	ds to Effect Transfer 17		Seconds	•	
	Generator II	Normal Operating Condition	ns		ons New I er Trans	
	Voltage Amperage Wattage Frequency	121,121,120 190,160,195 59 KW 60 cps		121,12 190,16 59	0,195	
	Time in Secon	ds to Effect Transfer 6		Seconds	•	
					`	
	•	DATE -	2 OCTOP	ER 1963		

SUPERVISOR

QUALITY ASSURANCE

FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET 60 KW DIESEL GENERATING SYSTEM

STATION TKR

PARALLELING TEST (See Para. 13)

Generator I (After Paralleling)

Amps		90,50,95 Amps
Watts		28.5 KILWatts
Volts		121,121,12 Volts
.Frequency	• • • • • • • • • • • • • • • • • • • •	cps
-Tachometer-R	eading	RPM

Generator II (After Paralleling)

Amps				85,45,90	Amps
Watts		- 1	. ,	26.5 KIL	Watts
Volts				121,121,	12 Volts
Frequency				60	срв
Tachometer	Readin	g	1		RPM

DATE 200CTOBER 1963
TESTER WALLAN
SUPERVISOR

QUALITY ASSURANCE

GEEIA

FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT

DATA SHEET

60 KW POWER GENERATING SYSTEM

STATION____CHO

BRII/111

FREQUENCY (See Para. 7)

Ge	n	e	r	a	to	r	Ι

	Name Plate Frequency	(0	cne
	Name Flate Frequency	<u> </u>	_cps
A.	Steady State Load	(0	
	Minimum Frequency Reading	60	cps
	Maximum Frequency Reading	60	_ cps
в.	Sudden Change - Full Load to No Load	(2	
	Minimum Frequency	<u> </u>	cps
	Maximum Frequency	61	cps
	Recovery Time	3	_Seconds
G.	Sudden Change - No Load to Full Load		
	-Minimum-Frequency		_cps
	-Maximum-Frequency		cps
	Recovery Time		Seconds
Ger	nerator II		•
	Name Plata Emparement	- 60	
	Name Plate Frequency		_cps
A.	Steady State Load	(0	
	Minimum Frequency Reading	60	cps
	Maximum Frequency Reading	60	cps
B.			
	Minimum Frequency	<u> 59</u>	cps
	Maximum Frequency	OT	_ cps
	Recovery Time		Seconds
-C-	Sudden Change No Load to Full Load		
	- Minimum-Frequency		cps
	Maximum Frequency		cps
	-Recovery Time	, –	Seconds
	DATE // 2-1	163	
		malle-	
	SUPERVISOR - Gar	malla	
	QUALITY ASSURANCE Will	on R. Wish	
	GEEIA geriex Wat	ter L'Erai	<i>f</i> -
			7

BRII/112

BIG RALLY II PROJECT

DATA SHEET

·60 KW POWER GENERATING SYSTEM

STATION GHO

LOAD BALANCE (See Para. 8)		
Generator I		
	Test I	Test II (Corrected Unbalance)
Phase I		
Amperes Volts	130 120	
Volts x Amperes	15600	
Phase II Amperes Volts Volts x Amperes	130 120 15600	
Phase III	•	
Amperes Volts Volts x Amperes	122 120 14640	
Generator II		
Phase I		
Amperes Volts Volts x Amperes	130 120 15600	
Phase II		
Amperes Volts Volts x Amperes	130 120 15600	
Phase III		
Amperes Volts Volts x Amperes	122 120 14640	
	TESTER Gun	
	RVISOR COM	naller ?
QUALITY ASS	/ 1	K. KIED
	GEEIA (UUU	er of trang

FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET

60 KW POWER GENERATING SYSTEM

STATION GHO

PHASING (See Para. 9)		
Generator I		
Phase I 120 volt Phase II 120 volt Phase III 120 volt	s	
Generator II		
Phase I 120 volt Phase II 120 volt Phase III 120 volt	s	
NEUTRAL GROUNDING (See Para. 10)		
Generator I		•
Ground Rod to Neutral Terminal	0	OHMS
Generator II		
Ground Rod to Neutral Terminal	0	OHMS

DATE 11/21/63

TESTER GEETA COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

COMARIA

CO

FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET 60 KW DIESEL GENERATOR SYSTEM

BRII/114

S	TA	TI	ON	GHO	•
_					_

TERMINAL VOLTAGE (See Para. 11)

Percent Voltage Drop (Generator Panel Board Voltage - Terminal Voltage)x100%
Generator Panel Board Voltage

	Single Phase 208 Volts		
	Generator Panel Board Voltage	Terminal Volts	% Volt Drop
Transformer I Transformer II			
j	Three Phase 208 Volts Generator Panel Board Voltage	Terminal Volts	% Volt
Phase 1 to 2 Phase 2 to 3 Phase 3 to 1	206 206 206	205 205 206	%.009 %.009
Phase 1 to Neutral Phase 2 to Neutral Phase 3 to Neutral	120 120 120	120 120 120	

DATE 11/21/63

TESTER GUMARLE

SUPERVISOR GUMARLE

QUALITY ASSURANCE William R. Matter J. Change

FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET

BRII/115

60 KW POWER GENERATOR SYSTEM

		STATIO	ON GIIO
ENERATOR TRANSF	ER OPERATION (S	ee Para. 17	2)
Generator I			
N	ormal Operating Co	nditions	Conditions New Dut Unit After Transfer
Voltage Amperage Wattage Frequency	120 128 22000 60		120 128 22000 60
Time in Seconds t	o Effect Transfer_	12	Seconds.
Generator II			
N	ormal Operating Co	onditions	Conditions New Dut Unit After Transfer
Voltage Amperage Wattage Frequency	120 128 22000 60		120 128 2200 60
Time in Seconds t	o Effect Transfer_	10	Seconds.
			•
	DAT	1	/21/63 (allen
	SUPERVISO	11:11	rable.
QU	ALITY ASSURANCE GEEIA	1: LA	of Cair
			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET 60 KW DIESEL GENERATING SYSTEM

STATION	GHO
---------	-----

PARALLELING TEST (See Para. 13)

Generator I (After Paralleling)

Amps	_65	Amps
Watts	11.000	Watts
Volts	120	Volts
Frequency	_60	cps
-Tachometer Reading		PPM

Generator II (After Paralleling)

Amps	65	_Amps
Watts	11000	Watts
Volts	1.20	Volts
Frequency.	60	_cps
Tachometer Reading		RPM

DATE 11/21/63	
TESTER Gomalle	_
SUPERVISOR Gurnalla	-
QUALITY ASSURANCE William R. 2005	_
GEEIA Water LEA	1

FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT

BRII/121

DATA SHEET

20 KW POWER GENERATING SYSTEM

UENCY	(See Para. 7)			
Genera	tor I			
	Na	me Plate Frequency	60	<u> </u>
A. Ste	eady State Load		60	
	Minimum Frequence Maximum Frequence	cy Reading	60	
B. Su	dden Change - Full Los			
	Minimum Frequence		59.5	_ (
	Maximum Frequen	cy .	60	
	Recovery Time	•		ieco
C. Su	dden Change No Load			_
	Minimum Frequence	•		
	Maximum Frequence	cy	X	
	Recovery Time			ecc
Genera	tor II			
	Na	me Plate Frequency	60	
A. St		me Plate Frequency	60	. ,
A. <u>St</u>	Na eady State Load Maximum Frequen		60	
A. <u>St</u>	eady State Load	cy Reading		
	eady State Load Maximum Frequen Maximum Frequen	cy Reading cy Reading	. 60	
	eady State Load Maximum Frequen	cy Reading cy Reading ad to No Load	. 60	
	eady State Load Maximum Frequen Maximum Frequen dden Change - Full Lo	cy Reading cy Reading ad to No Load	. 60	
	eady State Load Maximum Frequen Maximum Frequen dden Change - Full Lo Minimum Frequen	cy Reading cy Reading ad to No Load	60 60 39.5	
B. <u>Su</u>	Maximum Frequen Maximum Frequen Maximum Frequen dden Change - Full Lo Minimum Frequen Maximum Frequen Recovery Time	cy Reading cy Reading ad to No Load cy cy	60 60 39.5	
B. <u>Su</u>	eady State Load Maximum Frequen Maximum Frequen dden Change - Full Lo Minimum Frequen Maximum Frequen Recovery Time	cy Reading cy Reading ad to No Load cy cy	60 60 39.5	
B. <u>Su</u>	eady State Load Maximum Frequen Maximum Frequen dden Change - Full Lo Minimum Frequen Maximum Frequen Recovery Time dden Change No Load Minimum Frequen	cy Reading cy Reading ad to No Load cy cy cy	60 60 39.5	
B. <u>Su</u>	eady State Load Maximum Frequen Maximum Frequen dden Change - Full Lo Minimum Frequen Maximum Frequen Recovery Time	cy Reading cy Reading ad to No Load cy cy cy	59.5 60 3	Seco
B. <u>Su</u>	eady State Load Maximum Frequen Maximum Frequen dden Change - Full Lo Minimum Frequen Maximum Frequen Recovery Time dden Change No Load Minimum Frequen	cy Reading cy Reading ad to No Load cy cy cy	59.5 60 3	Seco
B. <u>Su</u>	eady State Load Maximum Frequen Maximum Frequen dden Change - Full Lo Minimum Frequen Maximum Frequen Recovery Time dden Change No Load Minimum Frequen	cy Reading cy Reading ad to No Load cy cy d to Full Load cy	59.5 60 3	Seco
B. <u>Su</u>	Maximum Frequen Maximum Frequen Maximum Frequen dden Change - Full Lo Minimum Frequen Maximum Frequen Recovery Time dden Change - No Load Minimum Frequen Maximum Frequen Maximum Frequen Recovery Time	cy Reading cy Reading ad to No Load cy cy d to Full Load cy cy DATE 15 Nove	59.5 60 3	Seco
B. <u>Su</u>	Maximum Frequen Maximum Frequen Maximum Frequen dden Change - Full Lo Minimum Frequen Maximum Frequen Recovery Time dden Change - No Load Minimum Frequen Maximum Frequen Maximum Frequen Recovery Time	cy Reading cy Reading ad to No Load cy cy d to Full Load cy cy DATE 15 Nove TESTER (AUT) ERVISOR Paules	59.5 60 3	Seco

FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT

BRII/122

DATA SHEET

20 KW POWER GENERATING SYSTEM

PHASING (See Para. 8)			
Generator I			
Position I Position II	_	120 238	Volts
Generator II			
Position I Position II		120 237	—Volts —Volts
NEUTRAL GROUNDING (See Para. 9)			
Generator I			
Ground Rod to Neutral Terminal	0		OHMS
Generator II			
Ground Rod to Neutral Terminal	0	•	OHMS

DATE 15 November 1963

TESTER CAUTOCALLA

SUPERVISOR LABOR

QUALITY ASSURANCE

GEEIA Whater & Chair

FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET 20 KW POWER GENERATOR SYSTEM

BRII/123

				STA	TION_G	IM	
TERMINAL	VOL1	AGE (See	e Para. 10)				
Percent Vo	ltage I	rop (Gen	erator Panelbo	ard Voltag	e - Term	inal Vo	tagely 10
			Generator 1	Panelboard	Voltage		tage/x 10
		Singl	e Phase 240 V	olts			
		General	tor Panelboard	Volt. T	erm. Vol	ts % V	olt Drop
MRC-80	N/A						
						1	
		Singl	e Phase 120 Ve	olts .		a.	
		Generat	or Panelboard	Volt. To	erm. Vol	ta % V	olt Drop
MRXXXXX I	.os						ort Drop
Line 1 to Ne	eutral		117		116		.85%
Line 2 to Ne	eutral	-	118	- :	118	1	0%
							•
					· · ·		
				DATE_1	5 Novemb	er 196	3
				TESTER	111	all	
				RVISOR —	Rand	21-	
		۵.	UALITY ASSU		1 300	· he	/
			C.	EETA	1) nit	//	Ba.

FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET 20 KW POWER GENERATING SYSTEM

BRII/124

STATION G I M

Generator 1	Normal Operation Conditions	Conditions New Duty Unit After Transfer
Voltage Amperage Wattage	240 80 17000	248 80 17000
Frequency	No. 1 to 1	
	o Effect Transfer 3	Seconds.
	Normal Operation Conditions	Seconds. Conditions New Duty Unit After Transfer

DATE	15 November 1963
TESTER.	WMallon
SUPERVISOR	ROCK
QUALITY ASSURANCE	5 miles
GEEIA	Water Llean

FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET 20 KW DIESEL GENERATING SYSTEM

BRII/125

STATION GIM

PARALLELING TEST (See Para. 12)

Generator I (After Paralleling)

Amps	32	Amps
Watts	8000	Watts
Volts	240	Volts
Frequency	60	cps
-Tachometer Reading		RPM

Generator II (After Paralleling)

Amps	32	_ Amps
Watts	8000	_ Watts
Volts	240	Volts
Frequency	60	срв
Tachometer Reading		RPM

DATE 15 November 1963

TESTER Comalle

SUPERVISOR _

QUALITY ASSURANCE

GERTA

9-35

FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT

BRII/121

STATION.

DATA SHEET

20 KW POWER GENERATING SYSTEM

	erator I		
17	Name Plate Frequency_	60	срв
A.	Steady State Load		
	Minimum Frequency Reading	60	срв
	Maximum Frequency Reading	60	срв
B.	Sudden Change - Full Load to No Load		1.
1	Minimum Frequency	60	срв
	Maximum Frequency	67	срв
. 9	Recovery Time	<u>3</u> s	econd
C,	Sudden Change - No Load to Full Load	,	
	Minimum Frequency		срв
	-Maximum-Frequency -		срв
	Recovery Time	$\angle X$ s	econd
		4	
Ger	nerator II		1
А.	Steady State Load Maximum Frequency Reading Maximum Frequency Reading	60	cps cps
B.	Sudden Change - Full Load to No Load	**	
٠.	Minimum Frequency	60	сра
1	Maximum Frequency	61	— сра
	Recovery Time	3 . 5	Second
G_	Sudden Change - No Load to Full Load	**	
C* 44.**	Minimum Frequency		Zcps
	- Maximum Frequency -		сра
	Recovery Time		econd
	DATE 16 November	1963	
	TESTER CALIFICA	llo-	- 15-13
	SUPERVISOR SOL	relo	
1 1	QUALITY ASSURANCE	00	
Y A	GERTA Watter	Lica	Y:

FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT

BRII/122

DATA SHEET

20 KW POWER GENERATING SYSTEM

	STATION_	GTA	
PHASING (See Para. 8)			
Generator I			
Position I Position II	$a = \frac{1}{2} \left(\frac{\partial f}{\partial x} + \frac{\partial f}{\partial x} \right) = \frac{1}{2} \left(\frac{\partial f}{\partial x} + \frac{\partial f}{\partial x} \right)$	121 239	Volts
Generator II			
Position I Position II		120 238	Volts
NEUTRAL GROUNDING (See Para.	9)		
Generator I			
Ground Rod to Neutral Termin	al	0	_ OHMS
Generator II			
Ground Rod to Neutral Termin	al	0	_ OHMS
	DATE 16 Novemb		
SUP	TESTER GUTU ERVISOR SO	aller Dallet	Ē
QUALITY ASS	URANCE - fine	1.0	
	GERTA WAITER	L Coa	ing

FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET 20 KW POWER GENERATOR SYSTEM

STATION GTA

2 12 11 12 17 18 18 18 18 18 18 18 18 18 18 18 18 18	rop (Generator Panelboard Vol Generator Panelbo			
	Single Phase 240 Volts			
	Generator Panelboard Volt.	Term.	Volts	% Volt Drop
MRATHROK N/A				
	Single Phase 120 Volts			
	Generator Panelboard Volt.	Term.	Volts	% Volt Drop
MRCESON LOS Line 1 to Neutral Line 2 to Neutral	120	119		.8%

TESTER

SUPERVISOR

QUALITY ASSURANCE

9-38

BRII/124

20 KW POWER GENERATING SYSTEM

STATION.

Generator 1	Normal Operation Conditions	Conditions New Duty Unit After Transfer
Voltage	21,5	245
Amperage	108	1.08
Wattage	22000	22000
Frequency	60	60
Time in Seconds to E	Effect Transfer 4	Seconds.
Generator II		
	Normal Operation	Conditions New Duty
	Conditions	Unit After Transfer
Voltage	245	21:5
Amperage	1.08	108
Wattage	22000	22000
Frequency	60	60
Time in Seconds to I	Effect Transfer 5	Seconds.
		Y
	and the second	
	DATE 16 N	ovember 1963
	DATE 16 No TESTER 4	ovember 1963 UTTLERCO
	TESTER L	
OI	TESTERSUPERVISOR	VMahlen
Ωζ	TESTER L	Boutto

BRII/125

20 KW DIESEL GENERATING SYSTEM

. 1		STATION_	GTA
PAI	RALLELING TEST (See Para. 12)		
	Generator I (After Paralleling)		
	Amps Watts Volts	50 9000 2110	Amps Watts Volts
	Frequency Tachometer Reading	60	cps RPM
	Generator II (After Paralleling)		
	Amps	50	Amps
	Watts Volts	9000	Watts
	Frequency Tachometer Reading	60	cps

DATE 16 November 1963

TESTER_

SUPERVISOR

QUALITY ASSURANCE

GEETA

9-40.

BRII/121

20 KW POWER GENERATING SYSTEM

OHER			
MODI	NCY (See Para. 7)		
Gen	erator I		
		60	
	Name Plate Frequency_	60	ср
A.	Steady State Load		
	Minimum Frequency Reading	60	ср
	Maximum Frequency Reading	60	ср
_			
В.	Sudden Change - Full Load to No Load	50	
	Minimum Frequency	59	cp
	Maximum Frequency	61	cp
	Recovery Time	3	_Secon
_			
~,-	Sudden Change - No Load to Full Load		
	-Minimum Frequency -	_	-cr
	-Maximum-Frequency	$\overline{}$	-cr
	Recovery Time	/	Secon
	· · · · · · · · · · · · · · · · · · ·		
Ger	arator II		
	nerator II		
		60	
	Name Plate Frequency_	60	ср
	Name Plate Frequency_	60	ср
Α.	Name Plate Frequency_ Steady State Load	60	
	Name Plate Frequency_ Steady State Load Maximum Frequency Reading		ср
	Name Plate Frequency_ Steady State Load	60	cr
Α.	Name Plate Frequency Steady State Load Maximum Frequency Reading Maximum Frequency Reading	60	cr
	Name Plate Frequency Steady State Load Maximum Frequency Reading Maximum Frequency Reading Sudden Change - Full Load to No Load	60	cr
Α.	Name Plate Frequency Steady State Load Maximum Frequency Reading Maximum Frequency Reading Sudden Change - Full Load to No Load Minimum Frequency	60 60	cr
Α.	Name Plate Frequency Steady State Load Maximum Frequency Reading Maximum Frequency Reading Sudden Change - Full Load to No Load Minimum Frequency Maximum Frequency Maximum Frequency	60 60 59	cr
Α.	Name Plate Frequency Steady State Load Maximum Frequency Reading Maximum Frequency Reading Sudden Change - Full Load to No Load Minimum Frequency	60 60 59	cr
A. B.	Name Plate Frequency Steady State Load Maximum Frequency Reading Maximum Frequency Reading Sudden Change - Full Load to No Load Minimum Frequency Maximum Frequency Recovery Time	60 60 59	ci
A. B.	Name Plate Frequency Steady State Load Maximum Frequency Reading Maximum Frequency Reading Sudden Change - Full Load to No Load Minimum Frequency Maximum Frequency Recovery Time Sudden Change - No Load to Full Load	60 60 59	ci
A. B.	Steady State Load Maximum Frequency Reading Maximum Frequency Reading Sudden Change - Full Load to No Load Minimum Frequency Maximum Frequency Recovery Time Sudden Change No Load to Full Load Minimum Frequency Recovery Time	60 60 59	crcrcrcrcrcrcrcrcr_
A. B.	Steady State Load Maximum Frequency Reading Maximum Frequency Reading Sudden Change - Full Load to No Load Minimum Frequency Maximum Frequency Recovery Time Sudden Change No Load to Full Load Minimum Frequency Recovery Time	60 60 59 61 3	cr
A. B.	Steady State Load Maximum Frequency Reading Maximum Frequency Reading Sudden Change - Full Load to No Load Minimum Frequency Maximum Frequency Recovery Time Sudden Change No Load to Full Load Minimum Frequency Recovery Time	60 60 59 61 3	cr
A. B.	Steady State Load Maximum Frequency Reading Maximum Frequency Reading Sudden Change - Full Load to No Load Minimum Frequency Maximum Frequency Recovery Time Sudden Change No Load to Full Load Minimum Frequency Maximum Frequency Maximum Frequency Maximum Frequency Maximum Frequency Recovery Time DATE 20 Novemb	60 60 59 61 3	cr
A. B.	Steady State Load Maximum Frequency Reading Maximum Frequency Reading Sudden Change - Full Load to No Load Minimum Frequency Maximum Frequency Recovery Time Sudden Change No Load to Full Load Minimum Frequency Recovery Time	60 60 59 61 3	cr
A. B.	Steady State Load Maximum Frequency Reading Maximum Frequency Reading Sudden Change - Full Load to No Load Minimum Frequency Maximum Frequency Recovery Time Sudden Change No Load to Full Load Minimum Frequency Maximum Frequency Maximum Frequency Maximum Frequency Maximum Frequency Maximum Frequency Maximum Frequency Recovery Time DATE 20 Novemb	60 60 59 61 3	cp cp cp secon
A. B.	Steady State Load Maximum Frequency Reading Maximum Frequency Reading Sudden Change - Full Load to No Load Minimum Frequency Maximum Frequency Recovery Time Sudden Change No Load to Full Load Minimum Frequency Maximum Frequency Maximum Frequency Maximum Frequency Maximum Frequency Maximum Frequency TESTER SUPERVISOR SUPERVISOR	60 60 59 61 3	cr
A. B.	Steady State Load Maximum Frequency Reading Maximum Frequency Reading Sudden Change - Full Load to No Load Minimum Frequency Maximum Frequency Recovery Time Sudden Change No Load to Full Load Minimum Frequency Maximum Frequency Maximum Frequency Maximum Frequency Maximum Frequency Maximum Frequency Maximum Frequency Recovery Time DATE 20 Novemb	60 60 59 61 3	cp cp cp cp Secon

BRII/122

20 KW POWER GENERATING SYSTEM

GAG STATION_ PHASING (See Para. 8) Generator I 240 Position I Volts 120 Position II. Volts Generator II 240 Position I Volts 121 Position II .Volts NEUTRAL GROUNDING (See Para. 9) Generator I 0 Ground Rod to Neutral Terminal_ OHMS. Generator II 0 Ground Rod to Neutral Terminal. **OHMS**

DATE_	20	November	1963
TESTER _	Cdv	Malle	
SUPERVISOR 4	Rand	Last C. Prac	lexal
QUALITY ASSURANCE 1			Mes
GEEIA			LARIO
			- and

FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET 20 KW POWER GENERATOR SYSTEM

BRII/123

STATION_GAG

	rop (Generator Panelboard Vol Generator Panelbo		
	Single Phase 240 Volts		
	Generator Panelboard Volt.	Term. Volts	% Volt Drop
MAN LOS	239	238	0,009
	Single Phase 120 Volts		
	Generator Panelboard Volt.	Term. Volts	% Volt Drop
MARKANA LOS Line 1 to Neutral	240	m <u>240</u>	
Line 2 to Neutral	XXX 120	120	

DATE 20 November 1963

TESTER CAUMALL

SUPERVISOR Landell (* Packed)

QUALITY ASSURANCE William R.
FEDERAL ELECTRIC CORPORATION

BRII/124

STATION GAG

DATE 20 November 1963

TESTER Course

SUPERVISOR Law

QUALITY ASSURANCE .

BIG RALLY II PROJECT

DATA SHEET

20 KW POWER GENERATING SYSTEM

Generator 1	Normal Operation Conditions	Conditions New Duty Unit After Transfer
Voltage Amperage Wattage Frequency	240 92 20,000 60	.239 92 20,000 60
Time in Seconds	to Effect Transfer 5	_Seconds.
Generator II	Ž. * ()	
Generator II	Normal Operation Conditions	Conditions New Duty Unit After Transfer
Voltage Amperage Wattage Frequency		

BRII/125

20 KW DIESEL GENERATING SYSTEM

			STATION	GAG
PARA	LLELING TEST (See	Para. 12)		
	Generator I (After Pa	ralleling)		
	Amps		39	Amps
1,80	Watts		7.000	Watts
3.0	Volts		239	Volts
	Frequency		60	cps
	Tachometer Read	ding-		RPM
	Generator II (After P	aralleling)		
	Amps		39	Amps
13	Watts		7,000	Watts
	Volts		239	Volts
	Frequency		60	cps
	Tachometer Read	ding '		RPM-

DATE 20 November 1963

TESTER COMPARLE

SUPERVISOR Kandalf (

QUALITY ASSURANCE (ALA

GERTA

FEDERAL ELECTRIC CORPORATION

BRII/121

BIG RALLY II PROJECT

DATA SHEET

20 KW POWER GENERATING SYSTEM

QUE	NCY (See Para. 7)		
Cer	nerator I		
Ger			
	Name Plate Frequency_	60	cps
A.	Steady State Load		
	Minimum Frequency Reading Maximum Frequency Reading	60	cps
B.	Sudden Change - Full Load to No Load		
	Minimum Frequency	59	срв
	Maximum Frequency	67	срв
	Recovery Time	3	Seconda
cc.	Sudden Change - No Load to Full Load		
	Minimum Frequency	1	cps
	Maximum Frequency		cps
	Recovery Time		Seconde
Ger	nerator II		, "
	Name Plate Frequency	60	срв
A.	Steady State Load		
	Maximum Frequency Reading	60	cps
	Maximum Frequency Reading	60)	cps
B.			
	Minimum Frequency	59	cps
	Maximum Frequency	61	cps
	Recovery Time	3.	Second
-C-	Sudden Change - No Load to Full Load		
	. Minimum Frequency.		cps
	Maximum Frequency		срв
	Recovery Time	$ \times$	Second
	DATE_11/19/63	00	•
	TESTER GUTTA	U illi	2
	SUPERVISOR Stone	> V/X	0
	QUALITY ASSURANCE WAS CONTROL OF THE	Black	10

BRII/122

20 KW POWER GENERATING SYSTEM

	STATION	GPR
PHASING (See Para. 8)		
Generator I		
Position I Position II	2h0 121	Volts Volts
Generator II		
Position I Position II	2110 120	Volts
NEUTRAL GROUNDING (See Para. 9)		
Generator I		
Ground Rod to Neutral Terminal	0	OHMS.
Generator II	¥	
Ground Rod to Neutral Terminal	0	OHMS

	DATE	11/19/63
	TESTER	Carmallan
	SUPERVISOR	
QUALITY	ASSURANCE	William K. Jan
	GEELA	Lister ATASig

BRII/123

20 KW POWER GENERATOR SYSTEM

		STATION	GPE.
TERMINAL VOLTA	GE (See Para. 10)	E -	
Percent Voltage Dro	op (Generator Panelboard V	oltage - Tern	ninal Voltage) x 100
	Generator Panell	board Voltage	
	Single Phase 240 Volts		
	Generator Panelboard Volt	Term. Vo	lts % Volt Drop
1.0.S. MRG-80	240	239	%.009
	Single Phase 120 Volts		
	Generator Panelboard Volt	. Term. Vo	lts % Volt Drop
0.0.5. MRC=80			
Line 1 to Neutral	120	120	none
Line 2 to Neutral	120	120	~
	D	ATE 11/19	/63:
	TEST	TER JOHNTIN	allen
	SUPERVIS	1.1:30	7 200 ·
	QUALITY ASSURAN	ICE William	To Plan
	GREIA	State Salada Carlo	urten bet genten dartet an ein am berfore en

FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET 20 KW POWER GENERATING SYSTEM

BRII/124

GPE

STATION_

DATE 11/19/63

TESTER

SUPERVISOR

QUALITY ASSURANCE

Generator		Normal Operation Conditions	Conditions New Duty Unit After Transfer
Voltage Amperage Wattage Frequency		21:0 81: 17.500 60	240 87 17.500 60
Time in Se	econds to Effe	ect Transfer 6	_Seconds.
Generator	п	Normal Operation	Conditions New Duty
		Conditions	Unit After Transfer
Voltage Amperage Wattage Frequency		Conditions	Unit After Transfer 2h0 8h 17.500 60

FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET 20 KW DIESEL GENERATING SYSTEM

BRII/125

STATIC	N GPE

PARALLELING TEST (See Para. 12)

Generator I (After Paralleling)

Amps		3/1	Amps	
Watts		7.000	Watts	
Volts		2/10	Volts	
Frequency		60	срв	
Tachometer Reading			RPM	_

Generator II (After Paralleling)

Amps	4.	32	Amps
Watts		8.000	Watts
Volts		2/10	Volts
Frequency		60	срв
Tachometer Reading			RPM-

DATE 11/19/63

TESTER Idvmalle

SUPERVISOR,

QUALITY ASSURANCE

GEETA

9-50

BRII/121

FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET

20 KW POWER GENERATING SYSTEM

	STATIO	N_	ING
FREQUE	NCY (See Para. 7)		
Ger	nerator I		
	Name Plate Frequency_	60	cps
À.	Steady State Load		
	Minimum Frequency Reading	60	cps
	Maximum Frequency Reading	60	cps
В.	Sudden Change - Full Load to No Load	60	
	Minimum Frequency		cps
	Maximum Frequency	61	срв
	Recovery Time	2	Seconds
c	Sudden Change - No Load to Full Load		
	Minimum Frequency	_	CP8
	- Maximum Frequency	\rightarrow	cps
	-Recovery Time	/	Seconds
Ger	nerator II		
	Name Plate Frequency_	60	cne
	Name Plate Proquency_	- 00	cps
A.	Steady State Load	,	
	Maximum Frequency Reading	60	cps
	Maximum Frequency Reading	60	cps
В.	Sudden Change - Full Load to No Load	60	
	Minimum Frequency	61	cps
	Maximum Frequency	3	cps
	Recovery Time		Seconds
-C-	Sudden Change - No Load to Full Load		
	Minimum Frequency -	_	cps
	-Maximum-Frequency	\longrightarrow	cps
	Recovery Time		Seconds
	DATE 27 ROV. 6	<u> </u>	7/1
	TESTER	Mos	1.01
	SUPERVISOR Journal	11 111	Elle
	QUALITY ASSURANCE OF COM	Made	<u>.</u>
	GERTA ///Action	L(K)	air
			- 9

BRII/122

DATA SHEET

20 KW POWER GENERATING SYSTEM

	STATIONT	AD .
PHASING (See Para. 8)		
Generator I		
Position I Position II	12 <u>1</u> 238	Volts
Generator II		
Position I Position II	123 240	Volts Volts
NEUTRAL GROUNDING (See Para. 9)		
Generator I		
. Ground Rod to Neutral Terminal	ZERO	OHMS.
Generator II		
Ground Rod to Neutral Terminal	ZERO	OHMS
	1	
	DATE 27 NOV., 1969	3 Ast A

QUALITY ASSURANCE

BRII/123

FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET 20 KW POWER GENERATOR SYSTEM

STATION_	TAL	TCO	
OIVIION-			-

TERMINAL VOLTAGE (See Para. 10)

Percent Voltage Drop (Generator Panelboard Voltage - Terminal Voltage) x 100%
Generator Panelboard Voltage

Single Phase 240 Volts		
Generator Panelboard Volt.	Term. Volts	% Volt Drop
235	235	ZERO
		ė.
Single Phase 120 Volts		
Generator Panelboard Volt.	Term. Volts	% Volt Drop
121	121 121	ZERO ZERO
	Generator Panelboard Volt. 235 Single Phase 120 Volts Generator Panelboard Volt. 121	Generator Panelboard Volt. 235 Single Phase 120 Volts Generator Panelboard Volt. Term. Volts 121 121

DATE 27 NOV., 1963

TESTER DESCRIPTION
SUPERVISOR

QUALITY ASSURANCE

WILLIAM

CERTA

WILLIAM

CERTA

CONTROL

BRII/124

THE TCO

STATION.

DATA SHEET 20 KW POWER GENERATING SYSTEM

Generator 1	Normal Operation Conditions	Conditions New Duty Unit After Transfer
Voltage Amperage Wattage	242 84 19.5 KW	2l <u>1</u> 82 16 KW
Frequency	60	60
Frequency Time in Seconds to 1		Seconds.
		Seconds. Conditions New Duty
Time in Seconds to I	Normal Operation Conditions	Seconds. Conditions New Duty Unit After Transfer
Time in Seconds to I	Normal Operation Conditions	Seconds. Conditions New Duty Unit After Transfer

DATE.

TESTER .

SUPERVISOR

QUALITY ASSURANCE

9-54

BRII/125

FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET 20 KW DIESEL GENERATING SYSTEM

STATION TAL TCO

PARALLELING TEST (See Para. 12)

Generator I (After Paralleling)

Amps	90	_ Amps
Watts	21.5 KW	Watts
Volts	239	_ Volts
Frequency	60	_ срв
-Tachometer Reading-	The second secon	RPM

Generator II (After Paralleling)

Amps		82	Amps
Watts		19 KW	Watts
Volts		238	Volts
Frequency		60	срв
Tachometer Read	ing-		RPM

DATE 27 NOV 1062

TESTER _

SUPERVISOR

QUALITY ASSURANCE

GREET A

9-55

DATA SHEET 20 KW POWER GENERATING SYSTEM

BRII/121

STATION TES FREQUENCY (See Para. 7) Generator I Name Plate Frequency_ 60 cps Steady State Load Minimum Frequency Reading cps Maximum Frequency Reading 60 cps Sudden Change - Full Load to No Load Minimum Frequency cps Maximum Frequency -cps Recovery Time Seconds Sudden Change - No Load to Full Load Minimum Frequency Maximum Frequency Recovery Time Seconds Generator II Name Plate Frequency_ Steady State Load Maximum Frequency Reading cps Maximum Frequency Reading cps B. Sudden Change - Full Load to No Load Minimum Frequency cps Maximum Frequency -cps Recovery Time Seconds Sudden Change - No Load to Full-Load-Minimum Frequency ps Maximum Frequency Recovery Time Seconds DATE 29 NOV. SUPERVISOR . QUALITY ASSURANCE

BRII/122

DATA SHEET

20 KW POWER GENERATING SYSTEM

	STATION.	TES	
	E set		
PHASING (See Para. 8)	1		
Generator I			
Position I Position II		120 2h0	Volts
Generator II			
Position I Position II		117 238	Volts
	The state of		.1
NEUTRAL GROUNDING (See Para. 9)			
Generator I			
Ground Rod to Neutral Terminal	7880	_	_ OHMS
Generator II			
Ground Rod to Neutral Terminal	7590		_ OHMS

TESTER Did Chall
SUPERVISOR CHALL

SUPERVISOR CHALL

QUALITY ASSURANCE MULTIPATER

GEETA WRITE LANGE

BRII/123

FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET 20 KW POWER GENERATOR SYSTEM

STATION_

	rop (Generator Panelboard Vol Generator Panelboa		
	Single Phase 240 Volts		
	Generator Panelboard Volt.	Term. Volts	W Volt Drop
MRC-80	236	235	17
	Single Phase 120 Volts		
	Generator Panelboard Volt.	Term. Volts	1 Volt Drop
MRC-80	120	370	3 77
Line 1 to Neutral Line 2 to Neutral	120	119	1 V

TESTER

GERTA Water & Craig

SUPERVISOR

QUALITY ASSURANCE

9-58

BRII/124

DATA SHEET 20 KW POWER GENERATING SYSTEM

Generator 1	Normal Operation Conditions	Conditions New Duty Unit After Transfer
	240	
Voltage	93	238 98
Amperage	20 KW	21 KW
Wattage Frequency	60	60
Generator II	Normal Operation Conditions	Conditions New Duty Unit After Transfer
Voltage	238	21:0
Amperage	93	96
Wattage	19.5 KW	19.5 KW
Frequency	60	60
Time in Seconds to	o Effect Transfer 4	Seconds.

STATION_

TESTER ___

SUPERVISOR

QUALITY ASSURANCE

GERTA

9-59

BRII/125

FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET 20 KW DIESEL GENERATING SYSTEM

	STATION_	TPS
PARALLELING TEST (See Para. 12)		
Generator I (After Paralleling)		
Amps	117	Amps
Watts	2h KW	Watts Volts
Volts	210	cps
Frequency		PPM
-Tachometer Reading		
Generator II (After Paralleling)		
	7.2/1	Amps
Amps	26 KW	Watts
Watts	235	Volts
Volts	60	срв
Frequency Tachometer Reading		RPM
선생님이 아니는 아이들이 살아 있다면 하는데 아이들이 하는데 그렇게 하는데 하는데 하는데 하다.		

TESTER Dub C. Modelle Supervisor & Carilleste Country ASSURANCE & Male & Charles & Craig

BRII/121

20 KW POWER GENERATING SYSTEM

STATION_TKA FREQUENCY (See Para. 7) Generator I Name Plate Frequency 60 Steady State Load Minimum Frequency Reading cps Maximum Frequency Reading cps Sudden Change - Full Load to No Load Minimum Frequency 60 cps Maximum Frequency срв Recovery Time Seconds Sudden Change - No Load to Full Load Minimum Frequency -Maximum Frequency Recovery Time Seconda Generator II Name Plate Frequency 60 A. Steady State Load Maximum Frequency Reading Maximum Frequency Reading cps B. Sudden Change - Full Load to No Load 60 Minimum Frequency cps Maximum Frequency cps Recovery Time Seconds Sudden Change - No Load to Full Load . Minimum Frequency. -Maximum Frequency Recovery Time Seconds SUPERVISOR QUALITY ASSURANCE

BRII/122

20 KW POWER GENERATING SYSTEM

	STATION_	TKA	
HASING (See Para. 8)			
Generator I			
Position I Position II	Z240		Volts Volts
Generator II			
Position I Position II	720		Volts
EUTRAL GROUNDING (See Para. 9)			
Generator I			
Ground Rod to Neutral Terminal	ZERO		_ OHMS
Generator II			
Ground Rod to Neutral Terminal	ZERO		_ OHMS

SUPERVISOR 4

GEETA

QUALITY ASSURANCE

BRII/123

FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET 20 KW POWER GENERATOR SYSTEM

Percent Voltage D	rop (Generator Panelboard Vol Generator Panelbo	ltage - Terminard Voltage	nal Voltage) x 100
	Single Phase 240 Volts		
	Generator Panelboard Volt.	Term. Volt	s % Volt Drop
MRC-80 LOS	21.0	210	ZERO
	Single Phase 120 Volts		
	Generator Panelboard Volt.	Term. Volt	s % Volt Drop
MRC-80 Line 1 to Neutral Line 2 to Neutral	117	117	ZERO ZERO
	DAT	re 23 octob	TR. 196/3
	TESTE	1/4/1/	Mallan
	SUPERVISO		(Helman
	QUALITY ASSURANC	e <i>()) </i>	nnette
	GEELA	Centr	(Kain
			//

FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET 20 KW POWER GENERATING SYSTEM

BRII/124

Generator 1	Normal Operation	Conditions New Date
	Conditions	Conditions New Duty Unit After Transfer
Voltage Amperage	210	210
Wattage Frequency	90 19.5 KW	19.5W
	Effect Transfer	Seconds.
Generator II		
Generator II	Normal Operation Conditions	Conditions New Duty Unit After Transfer
Voltage	- 240	<u>-a÷ō</u>
Amperage Wattage	94:	10 E 704
Frequency	19.5 KW	2703 411

SUPERVISOR

QUALITY ASSURANCE

STATION

V

FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET 20 KW DIESEL GENERATING SYSTEM

BRII/125

STATION	TKA

PARALLELING TEST (See Para. 12)

Generator I (After Paralleling)

Amps	·	93	Amps
Watts		19.5 VM	Watts
Volts		510	Volts
Frequency		60	CD8
Tachometer Reading			RPM

Generator II (After Paralleling)

Amps		90	_ Amps
Watts		19.5 KW	Watts
Volts		310	Volts
Frequency		60	_ срв
-Tachometer Re	ading		RPM-

DATE 22 OCTOBER, 1963
TESTER
SUPERVISOR
QUALITY ASSURANCE

BRII/121

TIZ

STATION

DATA SHEET

20 KW POWER GENERATING SYSTEM

Gen	erator I		
	Name Plate Frequency_	60	
Α.	Steady State Load		
	Minimum Frequency Reading	60	
	Maximum Frequency Reading	60	
в.	Sudden Change - Full Load to No Load		
ט.	Minimum Frequency	59	
		60	
	Maximum Frequency	2	~
	Recovery Time		_Sec
C.	Sudden Change - No Load to Full Load	•	
	-Minimum Frequency		_/
	- Maximum-Frequency		
	Recovery Time		_Sec
Cen	erator II		
den	614.01 11	•	
	Name Plate Frequency_	60	
A.	Steady State Load	•	
	Maximum Frequency Reading	60	
	Maximum Frequency Reading	60	
B.	Sudden Change - Full Load to No Load	59	
	Minimum Frequency	-60	
	Maximum Frequency -	00	
	Recovery Time	2.	_Sec
C	Sudden Change - No Load to Full Load		
	Minimum Frequency		
	-Maximum Frequency		
	Recovery Time	/	300
	DATE 26 OCTOBE	R. 19	
	TESTER X. em	whis?	
	SUPERVISOR Range Jose	solo.	
	QUALITY ASSURANCE OFFICE	Pelis	
	11/24	1) 1
	GEETA COMMUNICATION OF THE COM	2/1	Ry
			miles of

BRII/122

20 KW POWER GENERATING SYSTEM

	STATION	TIZ	
PHASING (See Para. 8)			
Generator I			
Position I Position II		240 120	_Volts _Volts
Generator II			
Position I Position II		240 120	_Volts
NEUTRAL GROUNDING (See Para. 9)			
Generator I			
Ground Rod to Neutral Terminal	ZERO		OHMS.
Generator II			
Ground Rod to Neutral Terminal	ZERO		OHMS

DATE	26 OCTOBER, 1963
TESTER	S. E. Mobert
SUPERVISOR	Bauloforal
QUALITY ASSURANCE	3/11/ Minpelie
GEEIA	Walter Gray

BRII/123

TIZ

STATION.

FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET 20 KW POWER GENERATOR SYSTEM

TERMINAL VOLT.	AGE (See Para. 10)		
Percent Voltage D	rop (Generator Panelboard Vol Generator Panelboard	tage - Termina ard Voltage	l Voltage) x 100%
	Single Phase 240 Volts		
	Generator Panelboard Volt.	Term. Volts	% Volt Drop
MRCX80 LOS	240	240	0%
	Single Phase 120 Volts		
	Generator Panelboard Volt.	Term. Volts	% Volt Drop
MAXXXXXX LOS	117	117	0%
Line 2 to Neutral	117	117	0%
	DAT	E 26 OCTOBE	R. 1963
	TESTE	400	1 lost
	SUPERVISOR	R faul fa	noch
	QUALITY ASSURANCE	E <i>ZIIII 191011</i>	peter,
		10 600	

FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET 20 KW POWER GENERATING SYSTEM

BRII/124

STATION	<u> </u>	

	Generator l		
	Generator 1	Normal Operation Conditions	Conditions New Duty Unit After Transfer
	Voltage Amperage	240 78 16 KW	80 80
See Jan	Wattage Frequency	60	16KW
	Time in Seconds to Ef	fect Transfer 7	Seconds.
	Generator II		
		Normal Operation Conditions	Conditions New Duty Unit After Transfer

DATE	26 OCTOBER, 1963
TESTER	Se Mobis
SUPERVISOR	Pauloforosch
QUALITY ASSURANCE	Will Min wells
GEELA	Watter Charg
	17

FEDERAL ELECTRIC CORPORATION BIG RALLY II PROJECT DATA SHEET 20 KW DIESEL GENERATING SYSTEM

BRII/125

STATION	TIZ	
_		

PARALLELING TEST (See Para. 12)

Generator I (After Paralleling)

Amps	45	Amps	
Watts	本本 10。	5Watts	KW
Volts	 240	_ Volts	
Frequency	60	_ cps	
Tachometer Reading		RPM	

Generator II (After Paralleling)

Amps		45	Amps
Watts		10.5	W Watts
Volts		240	Volts
Frequency		 60	_ cps
-Tachometer Readin	g		RPM_

SUPERVISOR Ray forces of QUALITY ASSURANCE

GEELA

FEDERAL ELECTRIC CORPORATION 4861 PROJECT PATA SHEET PU-286/G GENERATOR SET

STATION _		GAR	
GENERATOR	SER #	1-11881124	1189962 TC

		EXPECTED	ACTUAL	
7.2.B	OIL PRESSURE	15 to 20 psi	20	
7.2.0	PREQUENCY	59 to 61 ops	59.5	(5)
7.2.D	AMMETER	NOT 52 amps	19	
7.2.D	VOLTMETER	118 to 122 amps	126	
	MULTIMETER READING	118 to 122 VAC	1217	24
7.2.F	BATTERY CHARGE RATE	NOT 6.3 amps	4.5	
7.2.0	OIL LOW-PRESSURE SHUT-OFF	Cup-off approx. 6 psi	Manual-RSK	Initial
7.2.H	LOW WATER SHUT-OFF	Cut-off approx. 2 min.	Mauual-RSK	Initial
7.2.I	VOLTAGE REGULATOR	WIF 115 to 125V swing	80-148	
7-2-3	FIELD RHEOSTAT	NLT 115 to 125V swing	100-140	
	[종일등 이번 그렇지 그 사무를 하기			

DATE 17 January 1964
TESTER SUPERVISOR FALLS (1964)
QUALITY ASSURANCE

GEETA Ralphas. Freiger

9-71

FEDERAL ELECTRIC CORPORATION 4861 PROJECT DATE SHEET PU-286/G GEMERATOR SET

statio Denera	TOR SER # 2-118996225/	118846570	
7.2.B	OIL PRESSURE	EXPECTED 15 to 20 psi	ACTUAL 3
.2.C	FREQUENCE	59 to 61 cps	Broken meter
.2.D	WWELLES	NOT 52 amps	20
.2.D	VOLTHETER	118 to 122 amps	122X
.2.E	MULTIMETER READING	118 to 122 VAC	122V
.2.F	BATTERY CHARGE RATE	NOT 6.3 amps	0
.2.0	OIL LOW-PRESSURE SHUT-OFF	Cut-off approx. 6 psi	Manuad-RSK Init
.2.H	LOW WATER SHUT-OFF	Cut-off approx.	Menual-RSK Init
.2.I	VOLTAGE REGULATOR	NUT 115 to 125V swing	100-140
7.2.J	FIELD RHEOSTAT	NLT 115 to 125V	100-140

DATE	17 January 1964
TESTER	Munya Wall
SUPERVISOR	JAKGOlorfo
QUALITY ASSURANCE	M. Onl
GEELA	Ralahel trecer

FEDERAL ELECTRIC CORPORATION CABLE TEST RESULTS

SITE TKR 2, OCTOBER 1963

DATE NO	DO THEIR	TOOR PEG	MURRAY	Α.	UDIO LOSS	
PAIR NO.	DC INSUL.	LOCP RES.		ING 10		5000 cps
L	INF.	48	32 Ohms	32 OHMS	oo opb	Jood ops
2 3	INF.	48	32 Ohms 32.5 II	32 OHMS 32.0 "	0.75db	3.2db
14 5 6	11	49	32.0 ¹¹	32.0 " 32.5 "	0.75db	3.2db
6	11	49	32.0 m 32.5 m	32.0 " 32.5 *	0.75db	3. 2db
7 8 9	n	48	32.0 ¹¹	32.0 " 32.5 "	0.75db	3.2db
io	n n	48	32.0 W	32.5 " 32.5 "	0.75db	3.2db
12 13	n II	48 48	32.5 m	32.0 m	0.75db	3.2db
11,	11 11	18 18	32.5 m	32.0 m 32.5 m	0.75db	3.2db
16 17	IR II	49 48	32.5 11	33.0 m	0.75db	3.2db
18 19	n n	50 49	32.5 II	33.0 " 32.5 m	0.75db	3.2db
20 21	11	49 48	32.5 m	33.0 m 32.5 m	0.75db	3.2db
22 23	n n	148 148	32.5 m	32.5 ¹¹	0.75db	3. 2db
25 25	11	49 48	32.5 m	32.5 II	0.75db	3.2db
26 27	11	48 48	32.5 " 32.5 "	32.0 "	0.75db	3.2db
28 29	11	148 148	32.5 " 33.0 "	32.5 m	0.75db	3.2db
30 31	#	48 48	32.5 "	33.0 N 32.5 N	0.75db	3. 2db
32 v33	10	48 49	32.5 II	32.5 " 33.0 "	0.75db	3.2db
34	Ħ	48	32.5 11	32.5 "	0.75db	3.2db
35 36	11 11	48 48	32.5 " 32.5 "	32.5 # 32.0 #	0.75db	3. 2db
37 38 39	11	49 49	32.5 " 32.5 "	32.5 " 32.0 "	0.75db	3. 2db
40		48	32.5 "	32.5 "	0.75db	3. 2db

PAIR NO.	DC INSUL	LOOP RES.	MURRAY TEST in OHMS	AUDIO LOSS 1000cps 5000cps
41 42 43 44 45 46 47 48 49 50	INF.	48 48 49 50 50 49 49 49	32.5 32.0 32.5 32.5 33.0 32.5 33.0 32.5 33.0 32.5	7 0.75db 3.2db 0.75db 3.2db

CABLE LENGHH 3200 FT.

CABLE SIZE 19 GAUGE DIRECT BURIAL

MURRAY TEST: EACH WIRE RESISTANCE TO GROUND

DC INSULATION: LOOP TO GROUND

DC LOOP RESISTANCE: RESISTANCE OF LOOP FROM TKR TO TERMINAL

AUDIO: ALL LOOP BASIS, i.e. PAIR 3 to 4 MEASURED AT TKR. THEREFORE

ALL MEASUREMENTS ARE ONE HALF TOTAL ON ONE WAY MEASUREMENT.

X*TALK: BETTER THAN -80db SIDE TO SIDE ON LOOP BASIS.

	DATE_	22 8	W.19	63
	TESTER			
SUPI	ERVISIOR _	Lagors	102	Inian
QUALITY AS				
GEEIA	Char	lese	Barre	rtine

SHEET 9 of 2

TID

FEDERAL ELECTRIC CORPORATION

BIG RALLY II PROJECT DATA SHEET HOT AND COLD WATER PIPE TESTS

ACTUAL

HOT WATER TRANSITE	EXPEDIED PSI 45 PSI. 60	Int
COLD WATER TRANSITE	EXPECTED PSI \$ 50 PSI 150	Int.
HOT WAREN CASING	EXPECTED PSI 15 PSI 15	Int.

TESTER // 120/63
SUPERVISOR / 120/63

QUALITY ASSURANCE

Qualified Requesters May Obtain Copies from DDC.

11. SUPPLEMENTARY NOTES

12. SPONSORING MILITARY ACTIVITY

486L SPO ESD

L.G. Hanscom Field, Bedford, Mass.

13. ABSTRACT

Test Procedures for MC-50 Multiplex

14.	THE STATE OF THE S	33.1	LINKA		LINK B		LINKC	
	KEY WORDS	7.7	ROLE	WT	ROLE	WT	ROLE	WT
		-		- Introduc	Statement !		日日午月	
Communication Syst	ems			e la fica	83			
Tests Multiplex Communication Test Equipment								
Radio Equipment Performance			inh water	Sur Gar G	QA1 10 21		2014	
Deta Documentation	Total Control of the			CLUse	Arten 79			
							SICON .	
			4		all super		21.79	

INSTRUCTIONS

- 1. ORIGINATING ACTIVITY: Enter the name and address of the contractor, subcontractor, grantee, Department of Defense activity or other organization (corporate author) issuing the report.
- 2a. REPORT SECURITY CLASSIFICATION: Enter the overall security classification of the report. Indicate whether "Restricted Data" is included. Marking is to be in accordance with appropriate security regulations.
- 2b. GROUP: Automatic downgrading is specified in DoD Directive 5200.10 and Armed Forces Industrial Manual. Enter the group number. Also, when applicable, show that optional markings have been used for Group 3 and Group 4 as authorized.
- 3. REPORT TITLE: Enter the complete report title in all capital letters. Titles in all cases ahould be unclassified. If a meaningful title cannot be selected without classification, show title classification in all capitals in parenthesis immediately following the title.
- 4. DESCRIPTIVE NOTES: If appropriate, enter the type of report, e.g., interim, progress, summary, annual, or final. Give the inclusive dates when a specific reporting period Is covered.
- 5. AUTHOR(S): Enter the name(s) of author(s) as shown on or in the report. Enter last name, first name, middle initial. If military, show rank and branch of service. The name of the principal author is an absolute minimum requirement.
- 6. REPORT DATE: Enter the date of the report as day, month, year; or month, year. If more than one date appears on the report, use date of publication.
- 7a. TOTAL NUMBER OF PAGES: The total page count should follow normal pagination procedures, i.e., enter the number of pages containing information.
- 7b. NUMBER OF REFERENCES: Enter the total number of references cited in the report.
- 8a. CONTRACT OR GRANT NUMBER: If appropriate, enter the applicable number of the contract or grant under which the report was written.
- 8b, &c, & 8d. PROJECT NUMBER: Enter the appropriate milltary department identification, such as project number, subproject number, system numbers, task number, etc.
- 9a. ORIGINATOR'S REPORT NUMBER(S): Enter the official report number by which the document will be identified and controlled by the originating activity. This number must be unique to this report.
- 9b. OTHER REPORT NUMBER(S): If the report has been assigned any other report numbers (either by the originator or by the sponsor), also enter this number(s).
- 10. AVAILABILITY/LIMITATION NOTICES: Enter any limitations on further dissemination of the report, other than those

imposed by security classification, using standard statements such as:

- "Qualified requesters may obtain copies of this report from DDC."
- (2) "Foreign announcement and dissemination of this report by DDC is not authorized."
- (3) "U. S. Government agencies may obtain copies of this report directly from DDC. Other qualified DDC users shall request through
- (4) "U. S. military agencies may obtain copies of this report directly from DDC. Other qualified users shall request through
- (5) "All distribution of this report is controlled. Qualified DDC users shall request through

If the report has been furnished to the Office of Technical Services, Department of Commerce, for sale to the public, indicate this fact and enter the price, if known.

- 11. SUPPLEMENTARY NOTES: Use for additional explanatory notes.
- 12. SPONSORING MILITARY ACTIVITY: Enter the name of the departmental project office or laboratory sponsoring (paying for) the research and development. Include address.
- 13. ABSTRACT: Enter an abstract giving a brief and factual summary of the document indicative of the report, even though it may also appear elsewhere in the body of the technical report. If additional space is required, a continuation sheet shall be attached.

It is highly desirable that the abstract of classified reports be unclassified. Each paragraph of the abstract shall end with an indication of the military security classification of the information in the paragraph, represented as (TS), (S), (C), or (U).

There is no limitation on the length of the abstract. However, the suggested length is from 150 to 225 words.

14. KEY WORDS: Key words are technically meaningful terms or short phrases that characterize a report and may be used as Index entries for cataloging the report. Key words must be selected so that no security classification is required. Identifiers, such as equipment model designation, trade name, military project code name, geographic location, may be used as key words but will be followed by an indication of technical context. The assignment of links, rules, and weights is optional.